Croonian Lectures
ON
POINTS CONNECTED WITH DIABETES.

Delivered at the Royal College of Physicians,

BY F. W. PAVY, M.D., F.R.S.

LECTURE II.—PART II.

HAVING thus spoken of Bernard's new method of procedure in relation to the blood, I will now examine what he says in relation to the liver.

There is a cardinal point that we must keep before us as regards this organ—namely, that it contains a principle (the amyloid substance, or glycogen, as it has been called by Bernard) which is exceedingly prone, as one of its chemical properties, to pass into sugar. This transformation takes place with such rapidity after death as to have formerly given rise to the spread of an erroneous conclusion regarding the state of the organ during life in relation to sugar.

Many years ago I pointed out that what had been taken, from an ordinarily conducted examination after death, as representative of the condition belonging to life, was untrue. I found that if the liver were placed at the moment of death in a condition to prevent a post-mortem formation of sugar, a very different state was met with from what had been previously supposed to exist. For preventing the post-mortem change, I recommended that the piece of liver to be examined should be plunged, as speedily as possible after death, either into a quantity of boiling water or into a freezing mixture of ice and salt. The effect of boiling water is to rapidly coagulate and destroy the ferment which is the source of the transformation, and that of the freezing mixture to suspend the occurrence of change by virtue of the reduction of temperature. Thus treated the liver was found to contain only a trace of sugar, instead of a notable amount, as had been previously believed. Before these experiments were performed no idea had been entertained that the result of an ordinarily conducted examination after death furnished a fallacious representation, and what I described was soon confirmed by various authorities in this country and abroad.

With reference to these results, Bernard remarks, in the *Comptes Rendus* for May 28th, 1877: "All the results that have been obtained, which appear contradictory to the existence of a notable amount of sugar in the liver during life, are defective and imbued with error. These remarks apply to the experiments of Pavy, Meissner Ritter, Schiff, Lusana, &c. These experimentalists have not proceeded with sufficient precision. They have not given the relative quantities of water and liver employed, have not determined the proportion of sugar found, and have often made use of processes too rough to permit an amount of from 1 to 2 per 1000 being recognised in the liver."

To rectify the alleged error, and to represent the amount of sugar contained in the liver during life, Bernard has recourse to the following extraordinary process:—A porcelain capsule is placed on a support resting on the scale of a balance, and arranged so that a jet of gas can be made to play underneath. Sixty grammes (about two fluid ounces) of water are placed in the capsule, and when brought to the boiling-point are counterpoised by weights in the opposite scale. At this stage the piece of liver to be examined, weighing about twenty grammes, is plunged into the water, and the weight taken, with the jet of gas playing under the capsule during the while. The heat is continued, and boiling maintained for five to ten minutes, when the liver is taken out, pounded in a mortar, and transferred, with the water in which it has been boiled, to a beaker. The contents of the beaker are again boiled, and the liquid is afterwards separated by straining and squeezing through muslin, and brought to a known volume. The proportion of sugar is then determined by Fehling's solution.

From the application of this process, Bernard asserts that the liver during life contains sugar to the extent of from 1 to 3 parts per 1000.

I will not say anything about the awkwardness of the part of the process in which the weighing of the liver taken is concerned. The process itself involves a total misconception of the precautions necessary to obtain a representation of the condition existing at the moment of removal from the animal. It is known that the liver contains both amyloid substance and ferment, and that the former is transformable into sugar by the action of the latter with a rapidity proportionate to the height of the temperature short of the ordinary coagulating point of albuminous matter, which is destructive of the active property of bodies of the nature of ferments.

If it be required, through the influence of heat, to prevent post-mortem change, the piece of liver should be plunged into a considerable quantity of boiling water—at least about a quart—in order that the heat may penetrate and destroy the ferment as rapidly as possible. With a piece of liver twenty grammes in weight immersed in only sixty grammes of water the relation is such that the temperature of the water is for a short time brought down, and the coagulating process correspondingly retarded. Under these circumstances, the process of transformation is actually favoured in the part to which coagulation is approaching. That what I have stated has no imaginary foundation I am able to show by appeal to observation.

Here are the results obtained after submitting the same livers instantly after death to Bernard's plan of preparation for analysis and my own plan by freezing, which I shall describe hereafter. The same process of analysis—viz., the gravimetric process, also to be hereafter described—was employed for each, so that it was only the mode of preparation for the analysis that differed.

Amount of Sugar found after Bernard's and the Freezing Methods of Preparation for Analysis.

		Sugar per 1000 parts. Bernard's method.		Freezing.
Liver of cat	.....	1·216	.....	0·345
Do.	do.	0·850	.....	0·056
Do.	rabbit	0·869	.....	0·069

I have stated that these results were obtained, as regards the actual estimation of the sugar, by my own process of analysis. If Bernard's method of procedure is adopted throughout, much higher figures are given. He simply states in the *Comptes Rendus* that in obtaining his figures the estimation was made with Fehling's solution. From what he says, however, about the position held by his new Fehling's solution and potash process, I take it this was adopted for the liver as well as the blood, and, if so, the remarks I have already made will apply here, and even, I learn from observation, with greater force than in the case of the blood.

I have grounds for asserting that the process *gives in a marked manner the reaction of sugar when no sugar is present.* It is admitted that the liver of the human subject, after death from disease, is usually found free from sugar. Now, I have procured specimens of liver from the post-mortem room, and noticed that, although they have given no trace of reaction on being tested ordinarily with the copper solution, yet by Bernard's process decolorisation from reduction of the oxide of copper has been readily effected.

Here are liquids obtained by treating the liver with sulphate of soda and heating to procure a clear product. The livers behaved in the same way to begin with, but they were purposely kept four and three days respectively before the products were obtained in order to render the evidence more conclusive. One was yielded by a case of death from suppurative peritonitis, and the other from malignant jaundice or acute yellow atrophy of the liver. Although, as may be seen, giving not the slightest sign of reaction on being tested ordinarily, yet it only requires under 15 cc. to completely decolorise 1 cc. of Fehling's solution treated with 20 cc. of the concentrated solution of potash, according to Bernard's plan.

Here is another case of a liquid similarly obtained and boiled for some time with a little potash to secure the destruction of sugar, presuming any to have been originally present. You observe, on Bernard's process being applied, that the test in the flask becomes decolorised after a certain amount of liquid has been dropped in.

Not only is this behaviour noticeable with the liver presumably free from sugar, but with liquids obtained from other organs. I have examined the spleen, kidney, and muscle in relation to this point, and found that each affords a behaviour indicative, according to Bernard's test, of the existence of a notable amount of sugar. Whether procured from the post-mortem room, the physiological laboratory, or

slaughterhouse, if these organs are treated with sulphate of soda, as mentioned for the liver, the liquid product furnished exerts a decolorising action upon the potash and Fehling's solution test. Hence, if this reaction were relied upon, it would have to be said that these organs contained a notable amount of sugar, although, as is well known, it is asserted as a part of the glycogenic doctrine that the liver alone of the organs of the body contains sugar.

Healthy urine also produces a strong decolorising effect, and not only urine in the fresh state—which I have shown contains a certain minute amount of sugar—but urine which has been kept for a considerable time. A short time since I purposely kept some urine, which, tested ordinarily, gave no reaction to begin with, for nearly three weeks; and although, at the end of that time, there was a mouldy growth upon the surface, a small quantity sufficed to remove the colour from Bernard's test. I have even kept a specimen of urine derived from a patient suffering from hæmaturia until it had become quite putrid; and this also, after coagulation and filtration, produced the same effect. It may certainly be assumed, under such circumstances, that no sugar could exist. The reducing action of the uric acid present in the urine appears to me inadequate to account for the result. Moreover, in some observations which are not yet sufficiently complete to permit me to do more than cursorily allude to them, I have, with the employment of chloride of ammonium to furnish the required ammonia, obtained distinct evidence that the extent of reducing action is influenced by the amount of potash used.

From the array of evidence which has been produced, the only conclusion that appears to my own mind permissible is that Bernard's new test is fundamentally fallacious. If the test is faulty, the results furnished by it must be rejected as unsound. The authority given by the weight of Bernard's great name renders it necessary that I should speak plainly in this matter, and it is my firm conviction that the ground must be cleared of the deceptive evidence that has recently been adduced to rightly fit us for approaching the investigation of the pathology of diabetes.

Lumleian Lectures
ON
INSANITY IN ITS LEGAL RELATIONS.

Delivered at the Royal College of Physicians,

BY JOHN CHARLES BUCKNILL, M.D., F.R.S.

LECTURE II.—PART II.

THE moral insanity of Prichard must not be treated in the lecture-room with that disdain which it has received in the courts. Homicidal insanity has been invented, but moral insanity, unfortunate as the term is, has only been misrepresented. It may be that the substratum of fact which underlies the theory of moral insanity is more interesting and important to schoolmasters and the trainers of youth than to lawyers; but as the latter are not unfrequently required to consider the theory, and are sometimes even compelled to deal with the reality of moral perversion, more or less the result of abnormal organisation, I cannot avoid the duty of some attempt to winnow this subject as far as my time and knowledge will permit.

I like sometimes to commence an argument by stating my conclusion, and my conviction is, that under the misnomer of moral insanity a very important, but little observed, form of insanity has been indicated, which I propose to designate as Evolutional Insanity—that is to say, insanity which has originated in some primæval vice of the organism, the characteristics of which during the earlier stages of its development are more manifested by moral perverseness and defect than by abnormal conditions of the intelligence. We must all have met with children who are strangely vicious from an early age—lying, thieving, cruel, violent, the despair of parents and pedagogues. Very often they have been born to a bad heritage, from a line of descent from insanity, vice, or crime. At periods of increased physical instability and growth, as at the second dentition, and still more at puberty and adolescence, their moral peculiarities become more marked, and their conduct more outrageous, the intellectual faculties becoming more and more involved, until, at an age varying greatly in different individuals, they eventually enter into a stage of unmistakable insanity, with all the qualities of irresponsibility upon which the most stringent legists can insist. Before this last change has taken place, and it may not occur until early manhood, or even middle age, it would seem extremely harsh to say that such persons ought to be punished for their offences; and yet the power of self-control, under the fear of pain or the threat of punishment, is to a great extent possessed by them, and to refuse to punish a brutal, cruel, wicked youth because his father was insane would seem to be about the most unwise application of a theory which could be well conceived. Lord Justice Bramwell inculcates just the opposite doctrine when he says that if two boys robbed an orchard, one from a casual temptation and for the first time, and the other because he had a strong disposition to theft, he would admonish the former, and flog the latter severely, if flogging were his mode of punishment. Fortunately, the offences of these persons are not usually great crimes, but when they do commit such offences I can see no reason why their responsibility should not be decided upon by the same rules which apply to offenders whose state of mind has been the product of a more marked condition of disease. Prichard, learned as he was, knew comparatively little of insanity by observation when he wrote his treatise; and if, instead of ranging alienist literature to discover examples of clever lunatics and of eccentric offenders, he had devoted his great ability to the investigation of the real facts of his subject, his conclusions would, I think, have better stood the test of time and inquiry. There can be little doubt that he misunderstood Pinel in affirming that the "*emportment maniaque sans délire*" of the latter is moral insanity. The words of Pinel, which have been quoted by so many authors as proof that he believed in insanity without affection of the intelligence, do not seem to me to strictly bear such a construction:—"I have not been a little surprised," says this father of our specialty, "to see many insane persons who offer at no time any lesion of the understanding, and who are dominated by a kind of furor, as if the affective faculties only had been injured." Now, I apprehend that this remarkable sentence refers rather to acute mania without delusion than to the forms of so-called moral insanity, or impulsive insanity, for whose support it has been claimed in evidence; for in these latter forms there is no furor, while in the former there is, and combined frequently with the most remarkable state of seeming intelligence—a mad intelligence, however—incapable of comprehension and the control of conduct.

Prichard's first example, which he cites from Pinel, is a striking illustration of the refracting medium through which we see things which seem to suit our theory. It has been so often quoted that I shall only repeat the first pregnant lines:—"The only son of a weak and indulgent mother gave himself up habitually to the indulgence of every caprice or passion of which an untutored and violent mind was susceptible. The impetuosity of his disposition increased with his years. The money with which he was largely supplied removed every obstacle to the indulgence of his wild desires. Every instance of opposition roused him to acts of fury," &c. He went storming through life, possessing a seemingly sound judgment, and being fully competent to the management of his estates. At last in a rage he threw a woman into a well, and was condemned to perpetual imprisonment in Bicêtre. It is to be hoped that the word "condemned" indicated that he was treated as a criminal and not as a lunatic, for not one word in Pinel's graphic description indicates the existence of insanity, or of any other mental state more abnormal than overbearing and malignant selfishness and passion. And yet this case continues to be quoted by all our writers on the irresponsibility of the insane as a typical one of moral insanity.

A case of much greater interest in every way was that of William Dove, found guilty and executed for murder at York in 1856. The plea of Not Guilty on the ground of Insanity was supported by remarkable evidence of the man's passionate, mischievous, and wayward conduct from childhood upwards. At seven years of age, among other

malicious actions, it was proved that he twice attempted to set fire to the house, and that he chased his sisters with a red-hot poker; at twelve years of age he got a pistol, with which he told his schoolfellows that he intended to shoot his father. He was expelled from school. As a farming pupil he put vitriol on a number of cows, by which they were seriously damaged; he frightened the servants by turning something alive into the kitchen, which was found to be two kittens with their eyes burnt out by oil of vitriol. As a farmer himself, he did many strange mischievous and cruel things to his servants, his horses, and his cattle. He led a wretched jarring life with his wife, threatening to blow her brains out, so that on two occasions she fled the house. Next door to him lived a widow whom he promised to marry when his wife was dead. With this intention he murdered his wife by the administration of six doses of strychnine, which he had procured in the most cunning manner. A first quantity of strychnine he bought, as he said, for the purpose of poisoning cats, and he did so use it. He subsequently got a second portion and a third, the last of which he stole out of a medical man's surgery. During the time his wife was being slowly poisoned, he wrote hypocritical but quite intelligent letters to her mother about his wife's spasms and danger. It may be truly said if Palmer had used similar forethought and design in obtaining, and in the use of the same means of destruction, there would have been but little probability of his conviction. If, for instance, Palmer had poisoned cats and dogs before he gave the drug to Parsons Cook, and if instead of buying or begging it he had obtained it by an act of theft, who can doubt that he would have escaped punishment? Strychnine, however, was found in the body of Dove's victim and not in that of Palmer's. There can be no doubt that the circumstances proved at this trial afforded strong evidence that Dove was during his whole life in a state of evolutional insanity, and that if his life had not been cut short the great probability is that he would eventually have become so insane as to be irresponsible. But that he was irresponsible for the scheming, cold-blooded, and malicious murder which he committed, either according to the law, to expediency, or to justice, I for one cannot hesitate to deny.

If this case is in itself instructive, the principles of law and of common sense laid down by Baron Bramwell, in his charge to the jury, render it far more so. I have only time to refer to a few leading points, the first of which is the admission that it was proved that Dove was not a sane man. "It is impossible to resist the conclusion," said the judge, "which the evidence given above suggests, that Dove was not a sane man. The result of the whole history appears to be, that he was from infancy predisposed (to say the least) to madness; that symptoms indicating that disease displayed themselves at frequent intervals through the whole course of his life, but that they never reached such a pitch as to induce those about him to treat him as a madman. ..... His language and conduct appear at times to have been inconsecutive, capricious, and not capable of being accounted for on any common principles of action; but this was only an occasional state of things. He appears to have acted, as a rule, rationally enough, and to have transacted all the common affairs of life. Did then the killing of his wife belong to the rational or the irrational part of his conduct? Every circumstance connected with it referred it to the former. ..... No doubt insanity is strong evidence of innocence, but it is not conclusive evidence; and the question whether or not its existence rebuts the presumption of guilt in any particular case is entirely for the jury." "The questions which by law had to be left to the jury were these—Did he know he was doing wrong? *Could he help it?*" In this last sentence this great judge seems to have anticipated that proposed change in the law which has since received the emphatic sanction of the Lord Chief Justice of England, for the question put to the jury whether the prisoner could help committing his crime, is, of course, the question of self-control expressed in vernacular phrase. Whether the prisoner could help it was most ably reasoned out in this charge. The crime was committed with every mark of deliberate contrivance and precaution, and it is this setting and keeping the mind in motion towards an object which constitutes the mental part of an act. If Mrs. Dove had met with an accident or disease likely to be fatal, before the poison was given, is there any doubt that it would have been withheld? An uncontrollable propensity, which accidental circumstances, or the fear of detection, constantly control or divert for a time, is an inconceivable state of mind. Clearly it is not a propensity which cannot be controlled, and must, therefore, be one, as the judge points out, which simply is not controlled.

This history and mental state of William Dove I have called typical; and I wish to explain what I mean to convey by the term, for it has an important bearing upon our subject. The word "type," as we know, and as our dictionaries tell us, has several different meanings; but the one in which I here use it is the one in which it is said to be used, in natural history, as that which combines most prominently the several characteristics of a group, as a particular individual who may be the type of a species. It is very important for us to consider whether we can mentally group together, in such a manner that our notions shall correspond with realities, different kinds of insane offenders whom we may refer to typical examples, as I have referred to William Dove as a type of evolutional insanity. I have a dread of propounding any grouping of facts in such a manner that it can be deemed to be an attempt at classification, well knowing the red-rag effect it has upon some minds, who take a class not to be a notional assent to certain possibilities, but for a real thing, and not unfrequently also for an attack upon some other notion supposed to be even more real. But is it not simply true that some insane offenders resemble certain other offenders, and differ from the remainder, so that by studying those resemblances and differences we come to have a better knowledge of each individual case? No one, I think, who has given much attention to this subject can doubt that the answer must be in the affirmative, or deny that the points of likeness include not only the cause and history, the physical symptoms and mental states, but also the kind of offence and manner of committing it. How remarkable is the resemblance of this case of William Dove and that quoted from Pinel, with many other examples of so-called moral insanity recorded by various authors. There is almost constantly heredity, which may or may not be noted; there is good physical health; there are the malice, mischief, and cruelty of early age, with or without intellectual stupidity, but with no idiotic defect of intelligence; there is the remarkable variation of reason with unreason in the conduct of life; and there is, up to a late period of the history, the power of self-control, under the fear of detection or the threat of punishment. The offence is always malicious, and often cruel, in cold blood, thereby differing from the apparent cruelty of epileptic furor. I examined a very remarkable instance of the group at Boston, in the United States, a young man named Jessy Pomeroy, who had been sent to a reformatory in his boyhood for torturing animals. After his early release on account of good conduct, he tortured two children to death, with the interval of a year between the crimes. Of the last, he told me that he sat upon the child and stabbed him with his penknife blade until he thought he could feel no longer; then he opened the longer blade of his knife and cut his victim's throat at the angle of the jaw, because he knew that the bloodvessels were nearest the surface there. It had been suggested that he was epileptic, and I think this had come to his knowledge, for he told me that he often felt a sensation like that which would be produced by a wet feather being drawn across his forehead from one temple to the other. I thought at the time, and shall still think so until I know to the contrary, that an epileptic aura takes the course of the nerves, and is never transverse to them. This youth was quick in intelligence, and he told me that his crimes were suggested to him by reading what he called "blood-and-thunder novels." He was under sentence of death when I examined him, but he has not been executed.

How different is this to the idiotic group, in which there is really want of self-control corresponding with intellectual defect, and ranging from the zero of cases I have already cited to the slight imbecility which does not exempt from the punishment due to minor offences. How different, again, are the epileptics, that most homicidal group of all, and with the least control over conduct, whose history of early life is commonly normal. The mental state of criminal epileptics, however, differs greatly. One commits homicide automatically; another in a state of morbid fury combined with stupor, which places him in a state of incomprehension which is equivalent to ignorance; and yet another commits it under the influence of hallucination or delusion. Another distinct and well-recognised group of insane homicides is that of puerperal women with all the physical signs of their condition, which cannot be overlooked or ignored. Peevish, feverish, irritable, and capricious, they know to a certain

extent what they are doing, and although the motive for infanticide may be absurdly trivial, still there is a motive, and not an amiable one. Another noteworthy group is that of climacteric women, and sometimes of men, who, with the marked history and physical symptoms of melancholia, are so subject to the dangerous delusions of persecution; but who also sometimes commit murder from stupidity and incomprehension alone, as in the instructive case quoted by Dr. Orange in his most valuable address to the Reading Branch of the British Medical Association. This woman killed with a shovel an aged neighbour whom she said she had often thought of killing. She probably killed her because she did not like her, and because her mental state rendered her incapable of comprehending the consequences of her act; she was convicted and sentenced. Dr. Orange found her suffering from climacteric insanity of a most decided and pronounced character, and she was wretchedly haggard, worn, and emaciated. She died in convulsions shortly after her admission to Broadmoor, and cerebral lesions were found resulting from subacute meningitis.

The paresic group also is a remarkable one, with very distinct history and distinguishing group of symptoms, both physical and mental. These insane very rarely commit homicide, but very frequently theft, and the theft is of a peculiar character. They appropriate the property of others under the belief that it belongs to themselves. I saw such a man lately, who appropriated a cask of ale, rolling it along the street in open daylight. He thought the brewery from which he fetched it and all its contents belonged to him. Prichard makes a mistake in attributing an instance of this kind to moral insanity, but the thieving propensities of general paralysis had not been observed when he wrote. He says that a wealthy gentleman joined a lady friend in the shop of a draper, who found himself robbed of a silk shawl, and charged the lady with the theft. The shawl was found in the pocket of the gentleman's great-coat hanging in his hall. It was "one of the gentleman's peculiarities" to do such things; he had general paralysis. I could add several more well-known groups from our present information on the subject, which is far from full and satisfactory. The truth is that the search for information on this especial subject has hardly commenced. Dr. John Gray, the experienced and accomplished physician to the State Asylum of New York, has published most valuable material for such an investigation in brief histories of the great number of insane criminals who have come under his observation; but I do not know that he has yet attempted to distil the mass. I had the pleasure of hearing one of these papers read before a medical association in America, and to observe that "when Dr. Gray brings forward such a great array of well-observed cases, and proves that so many people have committed such and such crimes, labeled with certain distinctive marks, and instigated by such and such conditions and motives, and then proceeds to show that the new case under consideration is fundamentally like a class of cases in his record, he is quite likely to succeed in any court in establishing the fullest consideration for his evidence." For, notwithstanding the strict limitation of our duty in the witness-box to diagnosis, we should be wrong, indeed, to forget that law-breach of all kinds is one of the symptoms of insanity, and in these inquiries often the very symptom which is most characteristic. It is our task to discover, and demonstrate if we can, when it is a symptom of disease and not a sign of selfishness and malice.

It is a happy circumstance for us professionally that we have not often to give direct evidence of crime. It is painful enough to give negative evidence which is incriminating. The most remarkable case in which I have been concerned, not even excepting that of Victor Townley, was the case of Constance Kent, who murdered her young brother, and escaped detection. After an interval of several years, a truly conscientious motive led her to confess, and the most painful and interesting duty fell to my lot of examining her for the purpose of ascertaining whether it would be right to enter the plea of "not guilty on the ground of insanity." I was compelled to advise against it, and her counsel, Mr. (now Lord) Coleridge, on reading the notes of my examination, admitted that I could not do otherwise. By her own wish, and that of her relatives, I published a letter in *The Times* describing the material facts of the crime, but to save the feelings of those who were alive at that time I did not make known the motive, and on this account it has been that the strange portent has remained in the history of our social life that a young girl, not insane, should have been capable of murdering her beautiful boy-brother in cold blood and without motive. I think the right time and opportunity has come for me to explain away this apparent monstrosity of conduct. A real and dreadful motive did exist. The girl's own mother, having become partially demented, was left by her husband to live in the seclusion of her own room, while the management of the household was taken over the heads of grown-up daughters by a high-spirited governess, who, after the decease of the first Mrs. Kent, and a decent interval, became Constance Kent's step-mother. In this position she was unwise enough to make disparaging remarks about her predecessor, little dreaming, poor lady, of the fund of rage and revengeful feeling she was stirring up in the heart of her young step-daughter. To escape from her hated presence, Constance once ran away from home, but was brought back; and after this she only thought of the most efficient manner of wreaking her vengeance. She thought of poisoning her step-mother, but that, on reflection, she felt would be no real punishment, and then it was that she determined to murder the poor lady's boy, her only child. A dreadful story this, but who can fail to pity the depths of household misery which it denotes. At her arraignment Constance Kent persisted in pleading "guilty." Had the plea been "not guilty," it would, I suppose, have been my most painful duty to have told the Court the tragic history which I now tell to you, in the belief that it can give no pain to those concerned in it, and that it is mischievous that so great and notorious a crime should remain unexplained.

ON

SURGICAL EVIDENCE IN COURTS OF LAW,

WITH SUGGESTIONS FOR ITS IMPROVEMENT.

BY JOHN ERIC ERICHSEN, F.R.S., F.R.C.S.,

SURGEON EXTRAORDINARY TO THE QUEEN; CONSULTING SURGEON TO UNIVERSITY COLLEGE HOSPITAL; AND EMERITUS PROFESSOR OF SURGERY IN UNIVERSITY COLLEGE.

(Continued from p. 586.)

II.—INJURIOUS INFLUENCE OF THE PRESENT SYSTEM ON WITNESS, COUNSEL, AND JUDGE.

ANOTHER evil arising from the want of scientific knowledge in the tribunal before which the case is tried, is the difficulty of appreciating the proper bearing of ordinary means of scientific investigation in medical practice. It is often necessary to test the patient in various ways by scientific apparatus, such as the ophthalmoscope, the æsthesiometer, the dynamometer, and electric or galvanic batteries of various kinds. The indications afforded by these tests are often of the most important character; their value is that they furnish the surgeon with a series of objective phenomena by which the diagnosis can be determined, and the patient's real condition ascertained, by evidence of the precise nature of which he himself is probably quite ignorant, and which he cannot influence by any act of his own. The appreciation of the value to be attached to the results furnished by such tests is necessarily a matter of great difficulty to a non-scientific tribunal, and no surgeon would have ventured to have designated such a test as that for the determination of the electric irritability of muscle as "a mere toy," had he been addressing a scientific audience. That there should be a difficulty in the due appreciation of the real value of these scientific tests by non-scientific men cannot be considered altogether a matter of surprise; for, indeed, there are comparatively few men in the medical profession who are sufficiently skilled in these investigations for the results to be relied on in their hands. A very able writer in THE LANCET of December 15th, 1877, says, in reference to this subject:—"The injury from which the patient is suffering is usually of a very occult character, and such as can rightly be estimated only by those who have been very specially trained in the observation of nervous disorders, and by the aid of delicate instruments *which few, even within the pale of the profession, are thoroughly qualified to use.*' The writer goes on to say: "What usually occurs in such

cases as these is a disgrace to the judicial system, and is so unfair in its action upon plaintiffs, defendants, and those who are compelled to give professional evidence, that an alteration of the law must be considered as a proved necessity."

In the remarks which I have hitherto made, I have endeavoured to show that the present mode of subpœnaing witnesses and of taking evidence in the cases under consideration is vexatious and harassing to medical practitioners; that it is attended by very serious inconvenience, amounting in some cases to actual peril, to the public; that it is an anomaly, and indeed a detriment to justice, to try questions, the answer to which depends entirely upon scientific evidence, before tribunals which are notoriously and avowedly quite incapable of appreciating scientific medical evidence, and which have been stated on the highest legal authority to know "little or less than little of science." That the want of this special scientific knowledge, and the consequent inability on the part of the court to check dogmatic assertions, or to appreciate at their true value hasty statements made by the witnesses, tend materially to encourage conflicts of opinion, which might, and indeed would, be effectually restrained, if not altogether silenced, by a tribunal possessing such an amount of scientific knowledge as would enable it to judge of the real value of the statements made before it. This is more particularly the case when those statements have reference rather to matters of opinion, of which different views might naturally be taken by men equally competent to judge, than to the establishment of facts, the existence of which could be determined by direct observation. Another evil connected with the present practice of giving scientific evidence before a non-scientific tribunal is that the relative value to be attached to the statements of different men cannot be correctly appreciated by it. One "doctor" is as good as another in the eye of the law; and, not to mention the names of living men, if the evidence of a Marshall Hall or a Charles Bell on an obscure point of nerve physiology or pathology were to be positively contradicted by a "distinguished surgeon," who derides openly physiology, who designates the electric test "a toy," and has never attended to nerve pathology, the court would be greatly puzzled which to believe. Before a skilled tribunal there would be no difficulty in attaching the proper scientific value to each of the two opposing statements.

Having thus discussed the position held by surgical witnesses in respect to compensation cases, and the tribunal before which they are called, let me say a few words concerning the plaintiff, and see whether the law as it at present stands tends to further the ends of justice, or to impede its administration. We will suppose the case of a man who has been seriously hurt in a railway collision—a contingency that undoubtedly does sometimes occur,—who has been severely shaken, whose nervous system has in consequence been utterly disorganised, who has become emotional, hysterical, hypochondriacal, partially paralysed—in fact, broken down in body and mind, and reduced to the condition of a miserable nervous invalid. The negligence is admitted, the liability of the company is undoubted; an offer has been made which is considered insufficient on the part of the plaintiff and his advisers, and the question resolves itself into the very narrow one of an assessment of the proper amount of damages for the personal injuries sustained, and their legal consequences in the shape of pecuniary loss and increased expenses. The two latter questions are easily settled, and could be satisfactorily adjusted in an hour or two by any accountant. The only point of real importance that is left is for the plaintiff to prove the extent and probable duration of the injuries from which he has suffered and is still suffering. Now the process through which such a person has to pass before he can recover the compensation which is admitted to be due is something of the following kind. After having been under treatment, perhaps confined to his house, for many months, possibly for a year or more, too ill to take exercise, to attend to his business, or to enter society, during which time he has been subjected to several prolonged surgical examinations, he is brought up to the town where the action is to be tried. He is there again and for the last time examined, a day or two previous to that fixed for the trial, by his own medical men and those retained by the company. This examination is sometimes of an extremely prolonged and elaborate character—very different indeed in all respects from an ordinary surgical or medical consultation. It is often conducted by eight or ten different people, every one of whom may put any question that he likes, and make any examination of the patient that he thinks desirable. In fact, as this investigation is conducted, it is not a consultation at all. It is an examination of one party of medical men in the presence of another. It most improperly often assumes a *quasi*-legal form. The patient is examined and cross-examined as to how the accident occurred; when and where it happened; who was in the carriage with him; who assisted him out; how he got home, &c. Copious notes are taken, and the patient's answers carefully taken down. He feels that he is in the presence of a hostile party, that he is suspected, if not actually of malingering, at least of gross exaggeration, that he will be considered to be an impostor unless he can prove himself to have been honestly and truly hurt. This feeling not very unnaturally ruffles his temper, rendered morbidly irritable by the nervous state in which he is, and he becomes excited and wrangles with his examiners, or sullen and refuses to answer. In either case his manner is unnatural, and the effect produced is unfavourable. The whole business is fatiguing to the patient, and, as a rule, unsatisfactory in the extreme to his medical attendants. The next day is probably that fixed for the trial. The plaintiff is obliged to attend in court. He finds that there is a "part-heard" case on, which he is told may terminate at any moment, or may last two or three days. It happens to do the latter. The unfortunate plaintiff has to attend from day to day; and what is his position when so attending? He has to wait either in the close, and sometimes almost pestilential, atmosphere of the crowded court or to sit outside in some cold gallery or hall, waiting for his case to be called. No accommodation whatever is provided for patients of this class; there is no room into which they can retire, no fire by which they can sit, no couch on which they can recline. Those most ordinary comforts which are necessaries to an invalid are denied him, and this, it must be remembered, whilst the action is brought during illness, not after recovery. To place a man who is admittedly, and on all sides allowed, to be in a state of great physical suffering, of much mental distress, and of nervous exhaustion in such a position as this is, to say the least, not tempering justice with mercy. Courts of law are constructed for the healthy and the strong, not for the sick and infirm. The accommodation they offer may suit the man who seeks to recover the value of a damaged bale of goods, or of a lost portmanteau, but is scarcely suited to the necessities of him who claims compensation for an injured brain, or concussed spine, from which he is still suffering. I have known many patients suffer seriously at the time, and have their recovery materially retarded, by the exposure thus undergone when their health was little able to bear it. However, an end at last comes to this probationary stage. The case is called, the plaintiff is put into the witness-box, "and we have the edifying spectacle of a patch of spinal sclerosis or softening or hæmorrhage, possibly no bigger than a pea, argued about by counsel, whose knowledge of nerve pathology is exactly equal to that which would be picked up by a parrot in a medical school, and before a jury more ignorant than the counsel, and a judge who takes a strictly legal view of the nerve-centres."[1] The plaintiff is now placed in a new and most trying position—one in which he has never been before. It is always a nervous matter, even for a healthy and strong man, to appear as a witness in his own case; to a nervously emotional or hypochondriacal invalid it is often a most severe, if not a cruel, ordeal. Stared at by a crowded court, contemplated by a doubting jury, and scrutinised by a sceptical judge, he is interrogated by a friendly, and cross-examined by a hostile, counsel. He is obliged to give a detail of the particulars of the accident, a minute description of his symptoms; to describe the way in which he has passed his time; to lay before the court his whole financial position, his business gains and losses, the most intimate details of his family life.

The effect of all this—the novelty of the position, the examination and the cross-examination—is necessarily greatly to disturb a man who, however honest he may be and however desirous of being truthful, is avowedly in a state of physical suffering and of nervous depression. His condition in the witness-box almost invariably becomes unnatural, totally different from what has been observed by his medical attendants in the quiet of the sick room or the consultation chamber. The effect that is produced upon the patient is one of two kinds—it either hardens him, he forces

[1] THE LANCET, Dec. 15th, 1877, p. 895.

himself to meet his new position without flinching, becomes excited, flushed, more decided in manner, louder in voice, and more animated in tone, and thus his real weakness is concealed; or the reverse effect is produced—he becomes unnerved, is overpowered by his position, breaks down, sometimes bursts into tears, sobs, becomes emotional and hysterical. In either case a false impression of his condition is conveyed to the court, which looks upon him as a malingerer and guilty of wilful exaggeration, because his nervous condition has become worse than it was even at the last medical examination, making no allowance for the aggravation of the hysterical symptoms that would necessarily be produced by the fatigue and excitement to which he is exposed. Yet his condition, whatever it may be, is assumed to be his usual one, and the unfortunate man's manner in the witness-box is often taken as evidence against himself. It is no infrequent thing for a medical man to be asked if he had observed how the plaintiff walked up the steps or down the steps, how he took off his glove or pulled out his pocket-handkerchief, as if these matters had really the slightest bearing upon his actual physical condition, modified as it necessarily was by the excitement of the position in which he was placed. A plaintiff may of course wilfully and deliberately exaggerate his sufferings, but all exaggeration is not wilful. From the state of nervous agitation in which he is, the plaintiff is very apt to become excited as he recounts his own sufferings. He emphasises them and uses exaggerated terms; he little thinks that all exaggeration weakens his case. This may be nothing more than the unconscious exaggeration common to all patients who are emotional or hysterical; but it is very apt to be construed into a wilful desire to mislead, and then advantage is taken of this interpretation to prejudice all the other statements of the plaintiff. But most men think more of their own sufferings than even their best friends do, and exaggeration is as much an element of the hysterical state as is a want of control.

Railway companies are undoubtedly very open to imposition, not so much, perhaps, by direct malingering and fraudulent misrepresentation as by that exaggeration which is so common in all nervous cases, and which is partly unconscious, partly, and sometimes, perhaps, mostly wilful. This exaggeration runs through everything, business losses as well as symptoms. But there is one species of imposition which is systematically practised to a very great extent, and against which the surgeon must be on his guard, and must make allowance for on giving his evidence. It is the *nursing of symptoms*—the going into training for damages. A person is hurt, severely shaken, or locally injured. Under ordinary circumstances, and if no compensation were looming in the distance, such a patient would recover in a few weeks, or, at most, a very few months. But the surgeon will find that, so long as the action is pending, no progress whatever is made towards recovery, and he will have abundance of leisure to admire the ingenuity rather than the honesty of a patient who can keep his recovery in abeyance until it is convenient to effect it.

The officers of railway companies are not altogether free from blame in their behaviour towards persons who have been injured on their line, and their injudicious conduct often excites angry feelings, and leads to litigation which might not only have been avoided, but which might have been deprived of that angry and personal character which sometimes characterises it. Some of these gentlemen are infected by that "excess of zeal" which Talleyrand so much deprecated in diplomatic subordinates. They not only seem to consider that every person who alleges that he has been injured on their own particular line is an impostor and malingerer, but they do not even conceal this opinion from the patient and his friends. Such conduct, especially on the part of the medical officers of a company, acts injuriously in two ways. It irritates, not unnaturally, the sufferer, who feels that he has really been hurt, and induces him to press his claim vindictively against the company, stimulated by the additional injury of his *bona fides* being called in question, and by misleading the directors of the company itself, prevents all possibility of an equitable settlement of the plaintiff's claim. It can never be to the interest of a company to fight a notoriously hopeless case, as they must incur heavy costs in addition to being mulcted in damages, and if properly advised they will not do so, unless the claim be too exorbitant. They are too often led into courts of law by incorrect information as to the real gravity of the case, or are drawn into them by the sufferer, irritated by having been dogged by detectives, or the taunts of the company's officers, seeking to obtain exaggerated and vindictive damages. There is no worse defence than that the plaintiff is an impostor and malingerer, unless the charge can be most conclusively established. The failure of such a line of defence invariably enlists the sympathies of the jury in behalf of the plaintiff, whom they consider to have been morally, as well as physically, injured.

The assumption of malingering on the part of the defence which cannot be proved places the medical witness for the plaintiff in a very embarrassing position. If he feels strongly, as the result of frequent examinations and abundant opportunities of studying the case, that the plaintiff has really been seriously hurt, he will naturally express himself decidedly, and without hesitation, in support of what he not only believes to be the truth, but believes that he knows more accurately than anyone else in court; and a certain bias of mind may not unnaturally arise in the medical attendant who has watched the case, from sympathy with and interest in the sufferings of his patient. But, if he ventures to manifest it in his evidence, he does so at the risk of having unworthy motives imputed to him. By the adverse counsel he may be accused of advocacy; by the judge his sincerity may possibly be doubted, and in the summing up the jury will be warned not to trust his statements, as he has an evident desire "that his side should win." What grosser calumny can be cast on any professional man? How is it possible for anyone to judge of the motives that actuate another, as honourable and as truthful as himself, or as mindful of the oath that he has taken as the judge himself could be if he were called as a witness? And how can a judge reconcile it with his own sense of justice to assign unworthy motives to a scientific witness, without any other foundation than that he has given to the best of his ability such evidence as will tend to the establishment of what he honestly and conscientiously believes to be the truth? He may be in error. He may have been deceived by a designing patient. But if in error, it has been unknowingly, and certainly with no desire to mislead the jury.

Nothing is more common than for a plaintiff whose memory has notoriously become defective, who will forget the names of his children, the street to which he is going, or the errand that he is upon, to relate the whole history of his accident and of his sufferings clearly, consecutively, and in detail. This is by no means necessarily a proof that his memory is not defective in other matters. It may be owing to several circumstances; first that the story of the accident has become indelibly impressed upon his mind by his having had to repeat it over and over again in the various consultations with medical men and lawyers; that the event itself has been of so startling a character as to leave a deeper impression on the mind than the minor incidents of daily life; and, lastly, that in many cases of defective memory past events are distinctly remembered, whilst those of recent occurrence are entirely forgotten.

From all this it is evident that there is nothing more fallacious or likely to mislead than the plaintiff's demeanour in the witness box, and that his presence in court can serve no good purpose in enabling the jury to arrive at a correct opinion as to his actual condition, physical or mental.

(To be continued.)

CLINICAL ACCOUNT OF TWO CASES OF ANEURISM TREATED SUCCESSFULLY BY SYME'S OPERATION.

WITH REMARKS.

BY EBEN. WATSON, M.A., M.D.,
SURGEON TO THE GLASGOW ROYAL INFIRMARY.

J. W——, aged thirty-seven, was admitted to my clinical ward on the 12th September, 1876. His occupation was that of a boltmaker, and he stated that on the 10th of the previous month a small piece of iron from one of his tools had struck his left arm above the elbow. It wounded the inside of the arm, and blood spouted from the wound in a stream as thick as a crow-quill. A surgeon applied a compress of lint, and so stopped the bleeding. The wound healed, but a tumour arose in the place. This is said to have been

large and painful at first, but by applying fomentations both size and pain had been greatly diminished.

On admission to the hospital the swelling was as large as a hen's egg, and was situated in the course of the brachial artery. The skin over it was slightly red, and painful to the touch. The tumour was felt to pulsate in all directions, and a bruit was heard in it synchronous with the pulse; in fact, it had all the signs of a traumatic aneurism. The radial pulse of the affected arm was weak and intermittent, and both the temperature and the sensation of the hand were diminished.

Flexion of the elbow, and compression in various forms, both instrumental and with the finger, were first employed, but were ineffectual and ill-borne. I therefore tied the artery on the 23rd September. The patient having been brought under the influence of chloroform, I put a tourniquet on the brachial artery above, and an Esmarch's belt round the arm below the aneurism. I then plunged a bistoury into the aneurism, opened it freely up under a spray of solution of carbolic acid, and easily exposed the opening in the artery. It was fully half an inch long, and gaped widely. I next cut through the sac and thickened tissues at the sides of the artery a little above and a little below the opening, and at both places I passed an aneurism-needle under the vessel, and pulled it back armed with a catgut ligature. These were then tied upon the artery. On releasing the tourniquet and removing the belt, not a drop of blood flowed. In fact, the whole operation was very nearly bloodless. The wound was dressed antiseptically, and healed readily, the patient being dismissed cured on the 13th October, or twenty-one days after the operation.

I think it interesting to notice that I found a complete aneurismal sac in this case, though the artery was wounded only forty-four days before I operated. Hence the signs of aneurism were very distinct. It ought also to be noticed, however, that though the wound was made by a very small piece of iron, the injury to the coats of the vessel was so considerable as to render it almost impossible to expect that the flow of blood from it would be controlled by compression above the aneurism or by the Hunterian operation. It clearly had still to be treated as a wounded artery, and to be tied above and below *in situ*, according to the principle so much insisted on by Guthrie, Syme, and others. This was even more apparent in the case which I shall next relate, and which is still more interesting than the preceding, as well as exceedingly rare in civil practice.

The patient, W. C——, aged forty-one, was admitted to the Royal Infirmary under my care on the 10th of May last. A month previously (11th April) he had been shot by a revolver, when breaking into a house in the country, and lay bleeding under a hedge till he fainted. On recovering, he gave himself up, and was taken to Hamilton gaol, where he was attended by the surgeon of the prison. The entrance wound was at the upper and inner part of the belly of the biceps muscle, but the course of the ball could not be traced. An abscess, however, formed at the lower part of the right scapula, and on opening it the ball was found and extracted.

From the first the man complained of great pain in his fingers, and the pulse on that side was weaker than at the left wrist. On the 6th of May a large pulsatile tumour was discovered in the axilla of the injured arm, with considerable hardness around. Pressure on the subclavian lessened the axillary swelling, and when removed it filled with a thrill. It was therefore inferred that the artery had been injured, and the man was accordingly sent to the Royal Infirmary for further treatment.

When admitted there, I found him weak and nervous, quite exhausted from want of sleep, for he suffered such excruciating pain in the arm that he could not even lie down, but kept walking up and down the ward at night, and only sitting down occasionally to rest his wearied limbs. The pain was described as paroxysmal and shooting down the arm to the finger-points. Motion and ordinary sensation seemed quite lost in the hand, and he could not move the arm for the pain. In fact, the movements necessary to examine the axilla gave him great pain.

The tumour had already increased in size so as to fill the whole axilla up to the clavicle, which was not yet much raised above the level of the opposite bone. The third part of the subclavian could be easily felt, and compression of it on the first rib completely commanded the pulsation of the tumour in the axilla. I need hardly say that it was not difficult to determine the nature of the tumour. It was a large false aneurism, with all the usual signs present in a very marked degree, including a loud bruit synchronous with the first cardiac sound.

As it was obviously of great importance to lose no time in such a case, a consultation of my colleagues was summoned on the 12th May, and with their concurrence I proceeded that same day, at 3.30 P.M., to operate as follows.

The patient having been put under the influence of chloroform, the arm was abducted, and pressure was made on the subclavian by means of a key covered with lint. I then made an incision about three inches long from the apex of the axilla downwards in the course of the axillary artery. I cut cautiously through the skin and fascia—tying some small vessels as they bled—until I was sensible of having arrived at the imperfect sac of the aneurism; then, desiring the compression of the subclavian to be thoroughly exercised, I plunged my bistoury through the sac, following it with the index finger of my left hand. With some difficulty I cleared away the clots, and felt the vessel with a large aperture in it. I now compressed the artery with my finger below the opening, and laid the sac freely open. The clots were then turned out, and a prepared silk ligature passed round the artery under my finger. Only a little scratching was required to clear the vessel, and I was thoroughly satisfied with the accomplishment of that part of my operation. I had much more difficulty, however, in securing the vessel above the wound. In the first place, it was much deeper, and covered by two very large nerves, the median and ulnar, which for a time prevented my seeing the entire extent of the loss of substance in the arterial coats. Hence I actually passed a second ligature round the vessel, supposing that I had got to the proper place; but I was soon convinced of my mistake by a gush of blood, the first and only one which occurred during the operation. I immediately thrust my finger to the upper part of the head of the humerus, against which I securely compressed the vessel. Then, separating the parts better, raising the arm a little higher, and bending the elbow, I got room to insinuate an aneurism-needle beneath the sound vessel fairly above the opening. No doubt, could I have ascertained before commencing the operation that I should have required to surround the vessel at this part, it would have facilitated the proceeding to have cut through the pectoralis minor; but, as this case stood, that was out of the question, and the difficulty which I am now describing is just one of those which must be encountered in all such operations. I succeeded in overcoming it by employing an aneurism-needle curved to the arc of a small circle, so that it could be moved perpendicularly in a deep wound. I cannot speak with any certainty as to the situations of the ligatures, but I believe the lower one was placed just above the giving off of the subscapular branch, and the upper one above that of the long thoracic. For most of this distance, which seemed to me a very great one, the arterial coats were imperfect, and certainly at the lower part the opening extended to the full breadth of the vessel. The ligatures were cut short, and the wound was washed out with carbolic solution. A few stitches were then introduced under the spray, and antiseptic dressings applied. The hand and forearm were wrapped in flannel surrounded by cotton-wool; but these had soon to be diminished, as the temperature rapidly rose in the affected limb; indeed for the first few days the temperature was always two or three degrees of Fahrenheit above the normal standard. All his other symptoms improved rapidly. His pain at once ceased, so that he slept well the night after the operation. His appetite was excellent, though it was not indulged, he being kept on low diet for a fortnight; it was then improved, much to his satisfaction. As he was soon able to be out of bed every day, he increased in general strength, but the motion and sensation of the injured arm remained much as before. The interrupted current was applied to the forearm and hand for only a few days before his dismissal, and it seemed to have improved the sensation of these parts.

The only thing which troubled the patient after the operation was a small irritable sore which formed over the inner condyle—a bedsore, in short,—which was still unhealed when he was required by the authorities to stand his trial. He was handed over to the governor of Hamilton Prison just twenty-seven days after the operation above described, on the 8th of June, when I made the following note of his condition: "The operation wound is perfectly cicatrised, except a mere point at its upper extremity, where it is superficial and granulating. Measurement of the arm at the seat of aneurism shows its size to be quite the same as that of the other limb,

but the muscles of the arm are all stiff, and patient cannot use them freely. The motions of the elbows are perfect, but those of the wrist and fingers, and also of the shoulder-joint, are very ill performed. Sensation in the arm is quite natural, but not in the hand, the little and ring fingers especially being devoid of feeling. The bulk and colour of hand are natural, but the temperature is rather low, and the radial pulse cannot be detected."

Some weeks afterwards the patient was sentenced to two months' imprisonment, during which time the arm was not treated in any way. He therefore returned to the Royal Infirmary on Sept. 24th, when I found the hand quite stiff and useless, and the seat of a severe neuralgic pain, referred especially to its outer half. I used various remedial measures, including fomentations, local subcutaneous injections of morphia, passive motions, electricity, &c., but without any permanent or thorough relief; and, as the hand remained useless, I listened to the patient's urgent request, and performed amputation at the wrist on Nov. 10th. I now regret that I did not try nerve-stretching in this case, but it did not occur to me till too late. The usual vessels bled and were tied in the stump, which healed readily, and the pain did not return while he remained in the infirmary. He was sent to the Convalescent Home on Dec. 21st.

In this case it is obvious that the nerves, as well as the artery, were injured by the passage of the ball through the arm. The excessive bleeding which immediately followed the wound showed that the artery was cut by the ball at first; but it is probable that, when the man fainted, a clot formed so as temporarily to close the opening in the arterial coats, and it is not a little curious that the entrance wound healed, and eighteen days elapsed before any tumour was observed in the axilla. This may have arisen from want of observation, as the man was confined in prison, but at whatever date it happened I think it arose, not only from the clot in the wounded artery becoming loose, but from the opening being enlarged by sloughing, for I found it more than an inch in length, and quite equal to the calibre of the artery in breadth. The course of the ball was obliquely upwards, and it most probably ran along the artery for a short distance, bruising it, as well as the median and ulnar nerves, which there lie closely in contact with the vessel. Hence the want of motor power and of sensation in the hand experienced by the man from the first. This primary injury must likewise have caused the neuralgic pain in the arm to a very great extent, because it continued in some degree after the aneurism was cured, and when its pressure had therefore ceased to act upon the nerve cords.

Glasgow.

ON DIPHTHERIA (TRUE AND FALSE) AND THE ABUSE OF THE TERM.

BY BERNARD O'CONNOR, A.B., M.D.,
PHYSICIAN TO THE WELSHPOOL DISPENSARY.

SEVERE throat affections of all kinds have of late become unusually frequent, and as there is an increasing tendency on the part of the public and of some of the profession to group several of these under a common term, a few remarks may not be out of place on "Diphtheria vera" and a bastard affection which, from want of a better name, I will style "Adiphtheria," or "Diphtheria falsa."

True typical diphtheria is a general asthenic disease, in which we find not only inflammation of the pharynx and contiguous parts, with formation of "false membrane" (generally most abundant on the tonsils), but also great physical prostration, especially after the subsidence of the throat affection; and at an early stage albuminuria is observed during an uncertain period in the greater number of severe cases. I will not enter into a discussion on the various opinions held regarding the appearance, cause, and relation to other symptoms of this albuminuria—as to whether, 1st, from some occult cause (possibly constitutional or depending upon epidemic influence) the healthy function of the kidneys being interfered with and other secernent organs of the body taking on themselves extra and compensating work, similar to what is attempted by the duodenum after injury to the external cutaneous surface, induced by burns and scalds, the mucous glands of the throat, besides those of other parts, become over-strained, and their altered secretions give rise to the characteristic "διφθέρα"; or whether, 2ndly, the kidney-, throat-, and other symptoms acknowledge but one and the same primary cause and starting-point, and the affection of all the secretory organs (together with that of the vascular gland—the spleen) be essentially the same in kind, though the constitutional peculiarity of the patient may determine which organ or set of organs shall suffer in the greatest degree. The former view derives support from the facts (*a*) that the albuminuria, in those cases in which it has been noticed, occurred at an early stage, and (*b*) it has been stated by authors that the disappearance of the albumen immediately preceded a marked improvement in all local symptoms; while the latter view would clearly reduce diphtheria to a general constitutional disease in the strictest sense of the term.[1] I do not purpose, either, to give all the symptoms of the disease, but merely to point out the contrast between the true and false affections, laying stress upon the prominent local appearances. All my remarks, except where otherwise stated, are founded on personal clinical observation of a very minute kind.

Affections about the throat could be grouped into varieties, such as mild, asthenic, inflammatory, &c.; but, unfortunately, these artificial distinctions merely serve to entice our observation from the true nature of the attack itself. The main point is, is it diphtheria? Is it common sore-throat requiring no medical treatment? Is it simple laryngitis? Or is it a contagious sore-throat of an erysipelatous nature? We hear of an insidious form of "diphtheria" which comes on unexpectedly, with few, if any, general symptoms, in which the larynx is suddenly attacked, and suffocation speedily ensues. But who will say this is not a case of rapid acute laryngitis, with great œdema of the glottis? It may be contended that "diphtheria" may occur in a "mild" form, presenting no general, and but the slightest local, symptoms, with no albuminuria at any stage, nor any appreciable nervous depression subsequently. But who will maintain that such a case *is* diphtheritic? I admit that if there were several undoubted instances of *real* diphtheria in a neighbourhood, and if about the same time many other persons were attacked in the "mild" manner described, we should be justified in assuming that one cause (call it "miasma" if we will) had given rise to results of different intensities. But I am dealing now with those "mild" cases occurring as an epidemic in a district in which not a single *real* (typical) case of diphtheria has appeared, and my object is to contend against the abuse of the word "diphtheria" observed among the public at large, and, I am sorry to add, which *appears* to be encouraged by those who should know better. Jaundice could as justly be styled yellow fever, or a mucous diarrhœa dignified by the appellation of cholera, while roseola would do duty in the absence of scarlatina, and *false*-membranous laryngitis and laryngismus stridulus might be regarded as convertible terms.

True diphtheria at the onset draws attention in the patient's complaint of being "out of sorts": he has lost his appetite, and has slight feverishness and an "uneasiness" in his throat; swallowing becomes difficult, but not strictly painful; sometimes there is pain at the back of the neck; the skin feels rather *cool* and clammy to the hand. These and other symptoms are developed *slowly*, with headache and drowsiness, marked debility, and oftentimes shivering; frequently the joints (according to my own observation, generally the left shoulder, elbow, and wrist) become hot and tender. Cases of this nature, presenting the articular symptoms at an early stage, might for a moment throw us off our guard by reminding us of the sore-throat of rheumatic origin mentioned by Trousseau. The actual swelling of the mucous surfaces of the throat is far in excess of what is observed in general submucous infiltration, and we note a toughened condition of the reddened membrane itself, quite independent of any increased secretion in its follicles; and subsequently (in a few hours sometimes) we observe on the *surface* of the mucous membrane a greyish and elevated spot, or similar spots or patches, of a fibrinous nature, which will increase in size and spread in any direction. If this fibrinous substance—which must not be confounded with the yellowish points observed on the tonsils in quinsy—be pressed or

[1] Dr. George Johnson is of opinion that local mischief is first set up, and that this in its turn, after absorption, affects the general system.—THE LANCET, vol. i. 1876, p. 80.

rubbed from its situation, we have revealed to us a raw surface, which for a few moments seems paler in colour than the congested membrane around its edge. Then bleeding points are noticed on this raw surface, and the blood has a venous hue. Four or five hours later, the previously bleeding part becomes re-covered with exudation; but this, in its turn, is less tenacious and paler in colour than that which was removed. This exudation is the real pathognomonic and essential element—the διφθέρα (the prepared hide)—of "diphtheria" properly so called, the mark of the disease described by Bretonneau, and known as "angina maligna" by former generations. To constitute a διφθέρα there must be a new, free, and an independent formation, and not merely an altered condition of a previously existing structure. I am convinced that in not a few cases—e.g., scarlatina, in which the appearance of the rash has been delayed—the necrosed (already existing) mucous membrane of the throat has been mistaken for a diphtheritic (new) growth.

On the other hand, in "adiphtheria" we have congestion of the mucous surfaces and submucous infiltration of the soft palate, uvula and tonsils, &c., and, as in all acute inflammations of mucous membranes, the secretion of the part becomes thickened and tenacious, but there is no "false membrane" formed. I have invariably found in this affection that the prominent *edges* of the palatine arches are unusually attenuated and pale in colour and not congested. The attack *begins* with *sore-throat*, followed by high temperature—39° or 40° C.; the skin feels *hot* and dry, and deglutition is *painful*. The progress of the symptoms is *rapid*. I may add that here, as in quinsy, the local affection, being seldom confined to the tonsils, but generally observed on the uvula and soft palate also, frequently attacks, and in some instances expends its force on, the back and lower portion of the pharynx, constituting what Cullen called *cynanche pharyngea*: "Cum rubore in imis præsertim faucibus; deglutitione maxime difficili, dolentissima;.....et febre synocha."[2] "Diphtheria *vera*" with respect to throat symptoms, corresponds with *cynanche maligna*: "Tonsillas et membranam faucium mucosam afficiens tumore, rubore, et crustis mucosis coloris albescentis vel cinericii, serpentibus, et ulcera tegentibus; cum febre *typhode*....."[3]—say rather, *cum synocho*. Notwithstanding these quotations, I am fully alive to the difficulty in many instances of recognising in their old dress diseases with which we are to-day familiar, especially since the diagnoses in some quarters are in many cases simply an apotheosis of trifling maladies. In true diphtheria the pulse may be quick or slow, but it is always *weak*; whereas in this "adiphtheria," in quinsy, laryngitis, &c., I have ever observed it to be *strong*. *True* diphtheria leaves the patient enfeebled, and after a few days of apparent convalescence the characteristic nervous symptoms set in, attended by marked physical prostration, which may continue for many weeks; while from the "adiphtheria," quinsy, &c., the patient passes through a convalescent period of three or four days, and is then in his usual health. I attach no importance to the swelling of neighbouring glands, such as the submaxillary and cervical; for this is common in most of the acute affections of the throat.

(To be concluded.)

NEW METHOD OF SECTION-CUTTING AFTER FREEZING BY MEANS OF ETHER SPRAY.

BY R. SHINGLETON SMITH, M.D. LOND., B. SC.

THE following communication is intended to call the attention of histologists and pathologists to an easy and convenient method of obtaining sections of soft tissues in the readiest possible manner and with little expenditure of time.

All the freezing microtomes which are in use necessitate considerable leisure and freedom from interruptions. Most of them also require that a stock of ice shall be always ready to hand. The great loss of time required for freezing may be obviated by the use of Dr. Pritchard's copper cylinder; its only objection is that ice is indispensable. The various forms of microtome in which ice is not employed, but in which freezing is accomplished by means of ether, necessitate a considerable consumption of ether, and accordingly become rather expensive if frequently employed. A combination of a modification of Dr. Pritchard's cylinder with the process of freezing by ether spray has been found to give excellent results. The plan adopted is as follows: A wooden cylinder three inches long, flattened at each end, has a small solid cylinder of copper (half an inch in diameter and three-quarters of an inch in length) fitted into one extremity with only one-eighth of its length projecting beyond the wood, the copper being packed firmly in a depression of the wood by means of felt. The flat projecting end of the copper is slightly roughened. To make sections it is only necessary to take a small piece of the tissue, cut a flat surface, drop a very little strong gum on the end of the copper, place the tissue upon it, and then apply the ether spray; the tissue will freeze in a few seconds and become firmly attached to the copper block; the spray should be passed over the razor, and then, the wooden cylinder being held in the left hand, or simply steadied by the hand whilst resting on a table, sections may be cut by the razor in the usual way. If the tissue begin to thaw, the spray may be reapplied as often as necessary. Frozen tissues are so hard that the razor may be made to cut section after section quickly, and extremely thin sections may be obtained without difficulty. No microtome is necessary, and no great dexterity in section cutting is required.

The object of the copper cylinder is to keep the tissue frozen long enough for sections to be made; its presence necessitates the use of rather more ether than would be required to freeze the tissue on a non-conductor, as wood; with dexterity it is possible to cut sections frozen on wood by the ether spray, but the use of the copper allows more time and care in the process.

The ether used is the anhydrous methylated ether, sp. gr. 717. Two to three drachms are quite sufficient to freeze a piece of tissue half an inch in diameter, and to maintain it frozen long enough to cut fifty or a hundred sections. One objection may be mentioned—viz., the inflammability of ether. It is therefore necessary to be cautious in using the spray near a microscope lamp, as would not improbably occur at night.

The special advantages of this "ether freezer" are that it is always ready for use, the ether being always at hand, and that its use requires only a few minutes.

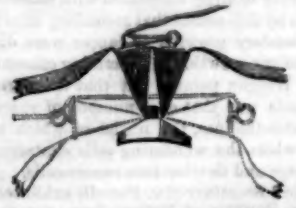
Clifton.

A NEW FORM OF FIELD TOURNIQUET.

BY JOHN M. HUNTER, M.D.,
STAFF SURGEON, R.N.

IN THE LANCET of July 15th, 1876, I described two new tourniquets—one for the use of medical officers only, and one for those unacquainted with the position of the arteries.

Since then I have succeeded in perfecting a field tourniquet for such as have had some slight surgical training. It is, I believe, perfectly novel in design, very portable, and exercises considerable pressure directly on the artery. The accompanying engraving shows its construction and mode of use. It consists of an oval wooden pad 1⅝ in. by 1¼ in.; slightly concave on the lower surface, which is covered with



chamois-leather. The upper surface is sloped to each side, leaving a flat central ridge, upon which a piece of web (26 inches long), with a buckle, is laid, and fastened by a slip of wood ⅜ in. high being nailed over it. Two wedges of wood, the breadth of the pad and 1¼ in. long, are nailed, with two rows of tacks, upon the upper surface of the web, one on each side of the central slip, the apex of each being

[2] Nosologiæ Methodicæ Gulielmi Cullen, M.D., classis i., ordo ii. (v. 4.)
[3] Ibid. (v. 2.)

about ¼ in. distant from it. A square staple, the breadth of the web, made of stout wire, is driven into the base of each wedge, and bent down at right angles so as to project a little over the lower edge. The web passes through this staple, which receives the chief strain when in use. A small brass eye is screwed into the centre of each base, and then a piece of whipcord fastened to the lower part of one of the eyes and passed once through each eye completes the instrument.

The mode of use is simple. The pad is buckled over the artery, and fixed by one hand, while the free end of the cord is pulled by the other. This causes the wedges to rise from the horizontal position shown by the dotted lines, and assume the upright one indicated by the dark part of the engraving, thus tightening the web, and thrusting the pad down on the artery. When the wedges are sufficiently brought together, a couple of half hitches around one of the eyes make it secure. The web being continuous beneath the wedges and central slip, forms a hinge for the apices, keeping them on the pad. The wedges act as levers, and the eyes as pulleys, which, as the cord is threefold, greatly increase the power applied, and the projection of the pad and wedges being all within the periphery of the circle formed by the tightened web, there is no power wasted in mere constriction. The entire instrument weighs a little less than two ounces.

R. N. Dockyard, Devonport.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Cancer of Lymphatic Vessels and Glands.—Lymphadenoma and Leukæmia.

THE ordinary meeting of this Society was held on the 16th instant; Dr. Murchison, President, in the chair. The evening was the third that has been devoted to the exhibition of specimens of lymphatic disease, and the subject chiefly discussed was again that of lymphadenoma.

Dr. HOGGAN exhibited a series of microscopical preparations illustrating the relations of Cancer to the Lymphatic System. The specimens were from a case of malignant disease of the skin, and had been mostly treated by the silver method. The conclusions arrived at after an extended series of observations were, *quoad* the lymphatic system, somewhat as follows:—As soon as the lymphatic glands are affected, the lymphatic vessels between them and the tumour become stuffed with cancer-cells, and not only these, but the distal vessels also, are plugged on account of the lymphatic glands being closed to the flow of lymph. The walls of the affected lymphatics remain unchanged, but the cancer-cells can be detected within them, since they behave like dead cells and do not stain with nitrate of silver. Although some of the cancer elements are derived from the fixed branching connective-tissue cells, yet the majority of the cancer-cells are developed from wandering corpuscles. No evidence had been found to support the view that the lymphatics were in direct connexion with cancerous tumours, and that it is by this means that secondary infection appears, but that secondary growths of cancer were direct outbuds from the primary growth. In describing cancer of lymphatic glands, Dr. Hoggan pointed out that the normal structure of these glands was that of a number of spaces or cavities lined with endothelium, the nuclei of which swell up and proliferate, while the wandering cells contained within the meshes enlarge and develop into cancer-cells.

The Medical Secretary (Dr. Powell) exhibited some specimens for Mr. PORTER, of Netley, from a case of Lymphadenoma. The patient, a private, aged thirty-five, admitted into Netley Hospital in February, 1876, about two years previously, after contracting syphilis, began to suffer from enlargement of the supraclavicular lymphatic glands, first on the left, then on the right side. Six weeks after the first swelling the right axillary glands became enlarged, then the left, then over the ramus of the jaw and occipital and right maxillary regions. The sore-throat disappeared as the glands enlarged. On admission there was a scaly syphilide on the trunk and limbs, and great enlargement of glands in the situations indicated (photograph shown), the swelling being hard and nodular, the skin over them somewhat tense, but movable. Œdema of chest-wall, of scrotum, right foot, and lower half of leg; dyspnœa and cough. No perceptible enlargement of liver and spleen. The blood contained about eighty white corpuscles $\frac{1}{1\,0\,0}$ inch square, and some granular matter. The urine was loaded with lithates; temperature normal; and death occurred from exhaustion in June, 1876.—Case 2. A corporal, aged twenty-three, admitted February, 1878, in a much emaciated condition. Had contracted syphilis about four years before, and had had several continuous manifestations of that disease. In March, 1877, an enlarged gland appeared under the lower jaw on the left side, and another on the right side. Thence the enlargement spread down to the clavicles, and round to back of the neck; whilst the inguinal and axillary glands also increased in size. There was no pain over the glands. No enlargement of either liver, spleen, or testicles. Good digestion; great thirst. Urine alkaline and phosphatic; and in the blood, about one hundred red to one white corpuscle. Such were the chief facts in this case, which is still under treatment. Mr. Porter also sent for exhibition two sections of a spleen from a case of lymphadenoma. Besides enlargement of the mediastinal retroperitoneal, iliac, and pelvic glands, there were growths in the calvaria and beneath the pleura, as well as in the spleen and liver. The mucous membrane of the colon was eroded.—The PRESIDENT said the Society was much indebted to Mr. Porter for his communication, which was interesting as showing the relations of lymphadenoma with syphilis.

Dr. TURNER exhibited microscopical sections and drawings of specimens from cases of Lymphadenoma, observed by himself and Dr. Sutton. Drawing 1 represented some enlarged and soft glands in the earlier stage of Hodgkin's disease, and showed the white new material collected in areas of hyperæmic tissue. Drawing 2 represented a spleen from a case of lymphatic glandular disease. The spleen weighed 22½ oz., contained opaque white porcellanous-looking masses, and, except the lymphatic glands, was the only organ diseased. 3. Spleen from a boy sixteen years of age; a case clinically that of the splenic form of disease. The organ weighed 4½ lb., and had the appearance of the "sago spleen," but gave no reaction with iodine. 4. Drawing of kidneys from Hodgkin's disease; great enlargement, with hæmorrhages on the surface and the substance of the organs; swelling of the cortical tissue by yellowish-white material. 5. Kidney from the splenic case (No. 3), showing the same characters as No. 4, without the hæmorrhages. The microscopical preparations were from the kidneys, intestines, and other organs, from these and other cases. Analysing twelve cases of which he had particulars, Dr. Turner said that seven of them were instances of Hodgkin's disease with extensive glandular enlargement; in two cases there was enlargement of the spleen without much enlargement of glands. In Ziemssen's Cyclopædia, after separating the leukæmic cases from the rest, the writer classes the others under the name of "malignant lymphoma." These are divided into hard and soft; and these again into glandular, splenic, and mixed. All the cases referred to by Dr. Turner came under this head; for although in some there was a certain degree of leucocytosis, there was no actual leucocythæmia. The present discussion had tended rather to show that leucocythæmia was a phenomenon of secondary importance, which might arise when the conditions of producing leucocytosis concurred. The distinction between hard and soft lymphomas was one rather of stage than of nature. Often a case presented firm smooth glands, side by side with others of a soft swollen nature, yielding a creamy juice. Instances of rapid change in shape and size of glands no doubt depended on these variabilities in degree of softness and vascularity. Dr. Turner argued in favour of the essential identity between the splenic and glandular forms of disease, and pointed to the drawings of the two kidneys showing similar characters, the one being from a case of anæmia lymphatica, the other from a case of great splenic enlargement and no glandular disease. As to implication of other viscera (liver, kidney, or intestine) in the new growth, he had found more or less diffused adenoid growth in seven out of nine cases, and probably the same would have been found in the remainder had they been examined microscopically. The fact of this diffusion of the lymphatic growth occurring both in

the splenic and glandular cases was strongly confirmatory of the view that these two forms of disease were merely varieties of one morbid process. Certain differences, due to their etiological conditions, such as the prior occurrence of ague in the splenic cases, or of chronic adenitis in the glandular, were of secondary importance. Another fact in favour of the identity view was the occasional occurrence of "mixed cases," such as that recorded by Dr. F. Taylor (Path. Trans., vol. 25), where there was enlargement of spleen and a high degree of leucocytosis associated with glandular enlargements and visceral growths. Lastly, there were some cases in which the essential morbid process primarily, and, perhaps, solely, involved other viscera than either the spleen or the lymphatic glands, and Dr. Turner gave particulars of two cases in which the liver was infiltrated with an adenoid growth.

Dr. DICKINSON described a case of Lymphadenoma associated with Tubercle, and exhibited a drawing of the spleen from this case. The appearances presented by the spleen resembled precisely those figured in Dr. Murchison's paper in the 19th vol. of the Transactions. The patient was a strumous boy who was admitted into hospital suffering from acute general tuberculosis. He had masses of enlarged glands on both sides of the neck, in axillæ, and in groins. He lived for eight days, and then the lungs were found stuffed with miliary tubercles, which occurred also in the kidneys, and meninges of the brain. The lymphatic glands presented tubercular characters, many caseating, and one had suppurated. But the spleen was the seat of a number of yellow firm nodules of the size of hazel-nuts, which microscopically partook in some parts of the characters of lymphatic growths, and in others of tubercle. Dr. Dickinson said that a parallel case had also come under his notice, and he thought they showed the existence of a certain relationship between tuberculosis and lymphadenoma or Hodgkin's disease.

Dr. GARLICK exhibited the Spleen and Lymphatic Glands from a rapidly fatal case of Lymphadenoma. The patient was a boy aged seven, admitted on January 5th into the Hospital for Sick Children, under the care of Mr. Smith, with enlarged lymphatic glands in the neck. The enlargement was of two months' duration, and death occurred in ten days after admission. There was marked asthenia, high fever (temperature 102° to 104°), diarrhœa, and difficulty in breathing. The blood was pale, but there was no excess of leucocytes. Lymphoid growths occurred in the spleen, liver, and lung; the cervical, tracheal, bronchial, and abdominal lymphatic glands were enlarged; many of the cervical showing caseous changes. Microscopically, the large size of the cells was the chief feature, and the spleen showed enlargement of the Malpighian bodies, with central degeneration. The rapid course of the case and the marked degeneration of the growths were the chief points of interest.

Mr. MACNAMARA exhibited a Femur from a case of Lymphadenoma. The patient was a boy nine years of age, who was at Stepney Asylum with strumous glands in the neck. About eight months after his admission the glands increased in size, and continued to enlarge until his death six months afterwards. When Mr. Macnamara saw him there was great enlargement of the glands on both sides of the neck, in places softened down. There was no enlargement of the spleen or liver, nor any albuminuria. There were no retinal hæmorrhages or other changes in the fundus oculi. Death took place from pleurisy. On post-mortem examination there was found enlargement of the œsophageal and mediastinal glands; the liver was normal, but a few nodules occurred in the spleen (which was not enlarged) and in the lower part of the lungs. The blood was often examined; it contained no increase in the number of white blood-corpuscles. The femoral artery having been injected, the femur was divided vertically, and it was seen that the medulla was occupied by a large quantity of lymphatic tissue, which had pressed on the bloodvessels, so that the injection did not pass into the medulla. This might have led in time to necrosis. The cell-growth resembled that met with in tubercle, and, like it, it invaded also the cartilaginous layers of the epiphysis, and involved further the deeper layers of the periosteum. Here was a disease to all intents and purposes of a malignant nature, of which the cell-elements were the same as those of lymphatic glands. It was a specific and definite affection, having no relation with splenic enlargement, for, frequently as splenic affections are met with among the natives of India, this condition of lymphatic glands is unknown among them. It may be that it has relations rather with tubercle, which is not common in India.

Dr. MORISON cited the case of a girl, aged seven, who died of Hodgkin's disease, as showing the connexion between lymphadenoma and struma. Her twin sister died two years before from the same disease, after a very brief illness. The other members of the family, ranging in age from eighteen years to one year, are all of strumous type; and the interesting point was that these twins were the only ones to show such marked strumous disease, all the other children having been single births.—Dr. PYE-SMITH ventured to remind the Society that whereas Piorry and Hughes Bennett had regarded the state of the blood in leucocythæmia as inflammation or suppuration of the blood, the credit of applying the name "leukæmia" to the condition rested with Virchow. Undoubtedly in this disease the number of white corpuscles was actually increased, it was not simply due to diminution in the red; and the question arose whether this excess of leucocytes was due to their greater production by the spleen, or to their diminished metamorphosis. Probably both views were true. Their increased production by the spleen was generally held to be a fact. Dr. Cavafy had observed that the leucocytes in leukæmia had lost the power of amœboid action, as if, owing to their rapid formation, they became deficient in quality, and lost the faculty of passing through the walls of bloodvessels. Their normal emigration being checked, they would accumulate in the blood. The absence of this leukæmia in the majority of cases of Hodgkin's disease may be accounted for by the fact that in almost all such cases there is more or less inflammation about the lymphatic glands, and therefore probably some obstruction to the passage of leucocytes into the circulation. Dr. Pye-Smith preferred the term "lymphosis" to that of "lymphadenosis" proposed by Dr. Gowers, for it would embrace those cases where the glands were not affected, such as anæmia myelogenica and intestinal leukæmia, of which a case had been long ago described by Béhier—cases in which enlargement of tonsils or of liver, &c., were the chief elements in the disease. Such can scarcely come under the heading of "Hodgkin's disease," and, for like reason, hardly under that of lymphadenosis. Idiopathic anæmia, which had been referred to, was clearly allied to anæmia myelogenica; but it was entirely different from ordinary anæmia, or chlorosis, one striking difference being that cases of idiopathic anæmia are not benefited by iron, quinine, or phosphorus. This remarkable and fatal disease, so elaborately discussed by Biermer and others, was first described by Addison in 1855, in his paper on "Disease of the Suprarenal Capsules," and, in the brief page he devotes to it, he gives as much of its characters as any subsequent writer in long treatises on the subject. The observation of retinal hæmorrhages, and the occasional presence of microcytes in the blood—not a constant condition—were the only facts added since Addison wrote. It was to vindicate the claims of English pathology that Dr. Pye-Smith lately called attention in Virchow's *Archiv* to this description by Addison; but Müller, in a large volume on the subject just published, ignores the work of Addison, and commences his history of the disease with Biermer.—Dr. MOXON, in rising at the President's invitation, said that the exhibition of the specimens had gone over too wide and vague a field to be adequately discussed; for, in the first place, four distinct disorders had been talked of as if they were closely allied, instead of being widely different. The disease just referred to by Dr. Pye-Smith could not be classed with Hodgkin's disease and leukæmia, except on the ground that we are so engrained with the idea that the glands and spleen are so connected with the blood that they share in all its changes. That most simple of diseases should have been left a blank; it was a condition of baldness or "alopecia of the blood." He liked the word "idiopathic," but "pernicious" served to describe the effect of the disease on the diagnostic powers of his friends, who had recently sent him a case of cancer of the stomach, and one of aneurism of the aorta, with the diagnosis of "pernicious anæmia." He would have liked it better had there been a braver tendency to look the facts of Hodgkin's disease and leukæmia boldly in the face, and, avoiding any slurring over distinctions, to bring into prominence the more striking features of these diseases. For himself he regarded Hodgkin's disease and leukæmia as entirely distinct, and the fact that there is no leukæmia in typical cases of the former affection was sufficient proof of this. There may be a slight increase in the leucocytes in some cases of Hodgkin's disease, but such cases stood to true

leukæmia much in the same relation as a mild glycosuria to saccharine diabetes. He was not a believer in lymphatic leukæmia, and lately a case was sent to his ward said to be of this nature. The patient was a boy, and the proportion of white to red corpuscles in his blood was as 1 to 27. When he died there was found carcinoma of lymphatic glands, lungs, and liver. The case illustrated the fact that in cancer there was an excess of white corpuscles. He had recorded (Pathol. Trans., vol. xviii.) cases like Dr. Dickinson's, showing the difficulty in distinguishing between tubercle and lymphadenoma. His own theory of leukæmia was that which he had frequently stated. He regarded the blood as a fluid tissue, and he was not so ready to admit that the blood was so dependent on the lymphatic glands and spleen as was generally taught. That was too much like a physiologist would make blood; but he himself was bold enough to remain somewhat unconvinced that the glands and spleen had this function. The evidence on which it was founded was that certain people—e.g., Rouget and Kölliker—had said they had actually seen under the microscope the transition between the white and red corpuscles. For himself, he was more impressed by the fact that chlorosis was cured by iron, and he had never seen any intermediate stages between the white and red corpuscles. In all books it is said that white corpuscles are poured into the blood by the glands and spleen, and it was asked, Where do they go unless they are turned into red corpuscles? The white cells pass out of the blood into the textures, and that was a sufficient explanation of their disappearance. He believed the blood to be a texture capable of its own diseases, and that when Bennett styled his newly-discovered disease "suppuration of the blood," he was as near the truth as when Virchow, basing his views upon the fashionable physiology of the time, sought for an explanation of leukæmia in splenic or glandular changes. Before assuming that we know all about blood, spleen, and lymphatic glands, we might ask what we know of pus-cells and pus-formation. Can any prevalent hypothesis explain the rapid exudation that fills the lung in acute pneumonia? Does this three or four pounds of new material come from the spleen? Or if composed, as it is, of white cells which should have been converted into red, why does not the patient become blanched instead of red in pneumonia? In fact, we ought to confess our ignorance upon these matters, and ought not to dogmatise about "splenic leukæmia," "lymphatic leukæmia," and all those other forms which have received distinctive names from changes being found in organs apart from splenic or glandular implication. Mr. Golding Bird had found the leucocytes in leukæmic blood to have active amœboid movements, and Dr. Moxon has seen them outside the vessels. Local circumstances may determine their accumulation in different places: e.g., the difficulty offered to the exit of blood from bone would favour their accumulation in the medulla; and the slowness with which the blood circulates in the spleen favours their aggregation in that organ. As to Hodgkin's disease, no doubt a good deal has been made out since it was first discovered. Dr. Goodhart, in his able remarks, had attempted to melt down this affection into a general kind of tumour history; but Hodgkin's disease is something more than a merely generalised tumour. It is characterised by a peculiar glandular affection associated with peculiar changes in the spleen (an organ not very liable to secondary tumours)—angular porcellanous-looking masses. Much of this confusion was due to the histological similarities. Everywhere the "lymphoid tissue of His" could be found, for it prevailed not only in lymphatic glands but in many other conditions of connective-tissue growth. Now Virchow recognising this identity of structure in a diversity of affections has gone so far as to include under the head of lymphoma, leukæmic tumours, tubercle, scrofula, the typhoid intestine, and the scarlatinous tonsil. What pathological value has such a generalisation? It would be well for pathologists to imitate the chemists in their institution of crystallography apart from chemistry proper, and assign all such groupings, according to anatomical affinities, in a sort of morphographical appendix, to pathology proper. Viewed apart, Hodgkin's disease has no doubt a definite pathology of its own—as yet unknown. Lastly, there was one condition which he had frequently pointed out—viz., retroperitoneal glandular disease extending to the walls of the intestine, and dilating this—an affection marked clinically by diarrhœa, and perfectly distinct in nature from Hodgkin's disease.

The Society then adjourned at a late hour.

PROVINCIAL MEDICAL SOCIETIES.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At the meeting in March, R. H. Meade, Esq., President, in the chair, a paper was read on Bleeding by Dr. BURNIE, who, after describing the former prevalent practice and its slow waning with the advance of physiology and pathology, ridiculed the idea of a change of type in disease, and was of opinion that reaction had gone too far. He advocated general bleeding where there was evidence of heightened blood pressure, in thoracic congestion and inflammation with great dyspnœa, and in puerperal convulsions; local bleeding where there was local congestion, and the disease still in its early stage, as in meningitis, pneumonia, pleuritis, peritonitis, &c. Bleeding, while powerful for mischief, affords in certain cases a distinct and valuable resource in the relief and cure of disease.—Dr. Whalley concurred, and instanced a case of cerebral congestion with paraplegia which recovered after general bleeding. The cases suitable for bleeding required care in selection, and the more accurate knowledge of antimony, aconite, and digitalis enabled us to avoid bleeding.—Mr. Aston said his experience was in favour of bleeding to a certain extent. Local bleeding increased the flow of urine in acute nephritis.—The President said that the view of change of type which Stokes laid down in his first address to the British Medical Association was entirely exploded. He clung to the theory of bleeding, but now rarely practised it; still would not hesitate to do so in a suitable case, as in an early stage of pneumonia in a plethoric subject, and also in congestive puerperal convulsions. He also had proved the value of local bleeding in kidney disease.—Dr. Goyder also concurred in the views expressed by Dr. Burnie as to general bleeding, especially in the early stages of acute inflammatory diseases—e.g., pneumonia and pleuritis. Congestive cases of puerperal convulsions should be bled. The benefit of local bleeding in pneumonia and nephritis was due to reflex vaso-motor influence.—Dr. Rabagliati referred to Christison's observations made thirty years ago in support of the change of type of disease. Bleeding should not be carried so far as to reproduce in its reaction the state of congestion it was intended to relieve.—Mr. Mossop spoke of the beneficial effects of early and recurrent bleeding and of bleeding in puerperal convulsions.—Dr. Burnie, in reply, said that bleeding was as useful in pectoral as in cerebral cases. He thought it dangerous to bleed much in kidney disease, although, if there was much renal congestion, local bleeding might be employed. Christison's "change of type" was synchronous with the decline of bleeding, and was merely invented to account for it.

NORWICH MEDICO-CHIRURGICAL SOCIETY.—At the meeting on March 5th (J. Allen, Esq., President), Mr. MANBY, of Rudham, read some interesting notes on the Incubation of Mumps. The case was that of a young lady aged eighteen, who, twenty-one days after calling at a house where mumps was epidemic, had a severe attack of parotitis. Twenty-four days later a sister was attacked; and twenty-nine days subsequently a brother was seized with mumps. From this Mr. Manby concluded that, in order to be effectual, isolation should last for a month or six weeks. — The PRESIDENT read a paper on Clinical Observations in Obstetrics: treating chiefly of the value of the stethoscope in the diagnosis of early pregnancy; the value of a glass of cold water in the morning vomiting of pregnancy; cases of sudden collapse during the catamenial period; a case of fatal pelvic hæmatocele, due to a fall shortly after delivery; the value of early delivery in cases of premature labour or abortion, and also in cases of accidental hæmorrhage. Other topics were—puerperal convulsions and their successful treatment by free purgation, the indications for version and for the use of instruments, and when craniotomy should be resorted to.

EDINBURGH OBSTETRICAL SOCIETY.—At the meeting on March 27th, Dr. ANGUS MACDONALD exhibited uterus and appendages from a case of Tubal Gestation. Death was sudden, the pelvis being found filled with clot in which a small fœtus was contained. The left Fallopian tube was ruptured, membranes protruding from it. There was a subperitoneal fibroid in the uterus, and a large mucous polypus filling the cavity.—Dr. KEILLER read a paper on Curettes and Curetting, in which he deprecated the too frequent use of the instrument, preferring the bimanual method of ex-

amination. His growing conviction had been that instrumentation was too freely and too frequently had recourse to. He showed certain instruments, and explained their action.—Dr. A. Macdonald spoke of need of thorough evacuation of the uterine cavity in cases of abortion, whether the curette or fingers were used.—Professor Simpson had long been familiar with the curette.—Dr. J. B. BUIST read notes of a case of Retroversion of the Gravid Uterus. There had been difficulty in micturition since the cessation of menstruation five months previously, which rather suddenly increased after exertion. The bladder became much distended, and the enlarged and retroverted uterus was felt filling the pelvis. Attempts at forcible reduction having failed, a purgative dose of castor oil was administered, and the next day the uterus was found in the normal position. Some pelvic inflammation ensued. It was suggested that distension of the bladder may have caused the retroversion. The pelvic inflammation was no doubt due to the dragging that had taken place on the uterine ligaments, and not to the force used in the attempt at reduction. — Drs. Keiller, Macdonald, and others spoke in the discussion that followed.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—This Society met on March 15th, Dr. Scott Orr in the chair.—Dr. CHARTERIS initiated a discussion on the treatment of Acute Rheumatism. He gave a rapid review of the various modes of treatment which had been practised, from the comparatively moderate venesection of Sydenham down to the more modern methods. Among these latter he specially adverted to the mode of blistering in succession the affected joints, and giving alkalies to neutralise the acid produced in the course of the disease. This was an improvement on former methods; it shortened the disease by ten days, and heart complications were believed to be reduced in frequency. The treatment by salicin or salicylic acid was then introduced, and this he looked upon as the best treatment for acute rheumatism at present known, and of the nature of a specific. Relief was experienced in from thirty-four to forty-eight hours, and the temperature also fell. Heart complications were not averted, except indirectly by the arrest of the disease. If the disease was very acute, with severe head symptoms, they must not trust to the salicylates, butto cold baths. Experience had led him to the conclusion that salicin should not be continued after the temperature reached 99°. If continued longer it exercised a depressing effect.—Dr. McCall Anderson agreed that for the ordinary run of cases salicin was the best treatment. But there were cases in which it failed, and even some in which the pyrexia was increased. But other subordinate points of treatment must be attended to, such as warmth, the state of the alimentary canal, dietary, &c. He could not look on salicin as a specific in the disease.—Dr. Gairdner insisted on the following points: (1) that no confidence could be placed in small doses of salicin; (2) in gonorrhœal rheumatism it had no effect at all; (3) that the effect of the drug was not dependent upon, or not commensurate with, its antipyretic effect; there was something specific in its effect.—Dr. Scott Orr said that with salicin his results had only been fairly successful. He would still prefer acetate of potash.—The subject was further discussed by Drs. J. Reid, Renfrew, Morton, Macmillan, Thomson, and others.

Reviews and Notices of Books.

Pathologische Anatomie des Ohres (Aural Pathology). Von Prof. SCHWARTZE. Berlin: Herschwald. 1878.

THIS excellent book on Aural Pathology will be welcomed as a most important addition to the literature of the science of otology, towards the progress of which we think that it is likely to do a great deal. Indeed, in this respect, we regard its appearance now as quite opportune, because much of what we have had added to our knowledge of the pathology of ear diseases since Toynbee's time has emanated from our German *confrères;* and this knowledge, hitherto for the most part scattered up and down in various journals, and therefore inaccessible, or nearly so, to most practitioners, is gathered up and presented to us in this volume as a complete study.

Of course, in speaking thus, we do not overlook the value and importance of the pathological labours of our own countrymen, nor does the author of this book do so; on the contrary, he ascribes to Toynbee the honour of having "founded" aural pathology; and to Hinton, among others, he makes frequent reference, especially to his "Atlas of the Membrana Tympani," which remains, as his other works also do, to form "stepping stones for others to advance upon," and as lasting memorials of the valuable aid which this lately deceased and accomplished man gave to the specialty which he dignified and adorned.

When we mention therefore that in this work by Professor Schwartze we have, and for the first time, a summary of the labours of the distinguished band of special pathologists who have risen into eminence in Germany since the death of Toynbee, and that indeed all that has been written on this subject, either before or since his time, is noticed in it, we state the grounds upon which our hope rests, that the appearance of this book now may effect a good purpose in respect to the progress of otology.

To this summary of the labours of others the author has added the results of his own extensive and well-nigh, if not quite, unparalleled experience as an aural pathologist, and which is not the least valuable feature of the volume. Indeed, it is this special qualification on the author's part that would appear to have fitted him for undertaking that which he has so satisfactorily accomplished.

We have therefore to express our entire satisfaction with the book; indeed, its merits are very great. It is concise, complete, and exhaustive of the subject, in proof of which we need only state that within the compass of a little over 130 pages of widely-printed letter-press the author has managed to give us all the knowledge that at present exists on the pathology of ear diseases.

Besides this, however, the literature of the subject of which the book treats is fully recorded in its pages, and for every statement of fact not observed by the author himself we have the authority given upon whose responsibility it is made; this alone makes the book of great value as a work of reference to aural surgeons, and indeed to all who are interested in the subject of ear diseases—to whom we cordially recommend it. We may add that it is very fully illustrated by well-executed woodcuts, and that most of these are original and representative of specimens in the possession of the author.

Altogether we congratulate Professor Schwartze upon the excellence of his work, which we understand is in course of being translated into English by Dr. Orne Green, of Boston, U.S.A.

A Text-book of Physiology. By MICHAEL FOSTER, M.D., &c. Second Edition. Macmillan and Co. 1878.

WE are glad to see that this treatise, published little more than a year ago, has already reached a second edition. It well deserves the position it has taken as one of the best manuals on the subject. It is curious to notice, however, the tendency to swell that exists in all works on physiology. Is it that the authors cannot bring themselves to expunge what has once been committed to paper? or is it easier to add than to correct and modify? or do the authors know more? or, lastly, is real work proceeding at so rapid a rate that, as in the case of the book before us, nearly a hundred pages have to be added in the course of one year? Dr. Foster has not been contented to make only a few verbal additions, but has very conscientiously worked over the whole subject, as is apparent from the alterations we meet with on every page. To the account of the blood he has now appended A. Schmidt's theory of the ferment by which coagulation is produced—a theory that has been advocated by Dr. Burdon-Sanderson in his Lectures on Comparative Pathology. It seems to us that much more evidence must be adduced

before it can be accepted as proven. In discussing the nervous mechanism of the submaxillary gland, the theory of Schiff, which was only mentioned in the last edition, to the effect that there are recurrent chorda fibres in the lingual nerve, is now more fully given, as well as the results of Bidder's experiments. In the section on Sight, a paragraph upon "Sehpurpur," or vision-purple, which has recently attracted so much attention, has been inserted, together with a short historical account of its discovery. The section on the Regulation of the Production of Heat in the Economy has been considerably expanded. An additional chapter has been added on the Phases of Life. In compliance with the recommendation of friends, and evidently somewhat against his own judgment, Dr. Foster has inserted a considerable number of illustrations, some of which—as that showing the difference of the nervous supply of the heart in the rabbit and dog,—we venture to think, will materially assist the student in the comprehension of the text. In our notice of the previous edition we strongly recommended the book to all who wish to make themselves acquainted with the present standpoint of physiology, and we can only repeat that it will be found to be one of the most reliable and intelligently written works on physiology in this or any other language.

The Year-book of Pharmacy, 1877, with the Transactions of the British Pharmaceutical Conference held in Plymouth. London: J. and A. Churchill.

THIS work, which has been compiled by a committee composed of Messrs. Stoddart, Carteighe, Groves, Benger, and Attfield, and has been edited by Professor Attfield, constitutes a most excellent *résumé* of all pharmaceutical work that has been done during the past year, and deserves every support that can be given to it by pharmaceutists throughout the kingdom. The first part is devoted to pharmaceutical chemistry, and contains not only very full abstracts of all English papers and memoirs on this subject, but numerous references to American, French, and German essays. Thus almost on the first page is a very correct and useful translation of Professor G. Dragendorff's memoir on the "Processes for the Detection of Alkaloids," from the *American Chemist*, which gives the details for the discovery of all the ordinary alkaloids, and should be gone over by every toxicologist. Then comes a succession of abstracts of which we can only indicate the names: The Pharmacopœia Test of Quinine Sulphate, by Dr. B. H. Paul; Aricine and Allied Substances, by O. Hesse; a Method of Detecting Castor Oil and other fixed oils in Copaiba, by Dr. Muter; the Manufacture of Nitric Acid, by H. Göbel; the Determination of Nitric Acid by Indigo, by R. Warington; a Method for the Analysis of Alkaline Mineral Waters, by Professor R. Fresenius; Butter Analysis, by Dr. J. Muter, and another method by A. Dupré. The second part of the work is devoted to Materia Medica, and contains abstracts of papers on arnica, cotobark, angelica, cubebs, aconite, kosin ava, arrowroot, ergot, xanthium spinosum, fucus, sumbul, ailanthus, maté, megarrhiza, and many others. The third part is devoted to pharmacy, and the fourth to notes and formulæ. The last part of the work is occupied with a full report of the British Pharmaceutical Conference, at which some really good papers appear to have been read. Taking one amongst the many "notes and formulæ," we shall select the aromatic elixir of liquorice, which is most useful in enabling bitter substances to be given to children and others to whom they are unpalatable. It has been suggested by Mr. J. P. Remington. It comprises: Cinnamon, 6; star anise, 4; coriander, 7; caraway, 7; tonqua, 4; canella, 2; nutmegs, 2; cloves (all in fine powder), 2; ammoniacal glycerrhizin, 40; fresh oil of orange, 2; alcohol, 532; syrup, 1000; water, 475. Details are given as to the mode of preparation. If it be desired to administer sulphate of quinia, all that is necessary is to pour into a teaspoon a small quantity of the elixir; add the quinia and swallow before the bitter salt dissolves to any extent, then follow with a fresh teaspoonful of elixir, and the deception is complete.

SIX YEARS' MORTALITY STATISTICS IN THE TWO METROPOLITAN ASYLUMS FOR IMBECILES.

I.

IT is more than ten years since the Metropolitan Poor Act (1867) was passed to facilitate the establishment in the metropolis of asylums for the sick, insane, and other classes of the poor, and for the distribution over the whole metropolis of portions of the charge for poor relief. Far from the least important result of this Act has been the erection of asylums for imbeciles at Leavesden, Caterham, and Clapton, which on the 1st of January, 1877, contained 4519 inmates, who, but for that Act, would have been either in county lunatic asylums, in workhouses, or living with relatives or others, supported by out-door relief. These 4519 inmates included 2124 at Leavesden, 2063 at Caterham, and 332 at Clapton. The Act above alluded to enacts in Section 30 that "every such asylum shall be considered as a workhouse, within the meaning of the Lunacy Acts," and, therefore, in the reports of the Lunacy Commissioners, all the inmates of these metropolitan asylums for imbeciles are classed with insane paupers maintained in workhouses. This is much to be regretted, as in consequence the county percentages of pauper lunatics, idiots, and persons of unsound mind, maintained in lunatic asylums, in workhouses, and with relatives or others, afford a fallacious basis for comparison. The interests both of the general community and of the insane paupers are best served by the treatment of such paupers in asylums for lunatics or for imbeciles especially adapted for the purpose; and figures showing the proportions of insane paupers under these three classes of treatment should afford a real clue to the amount of suitable provision for the care of the pauper insane in the different counties. Classing these metropolitan asylums as workhouses destroys the value of the percentages given in the Lunacy Commissioners' Report, as far as the three home counties of Middlesex, Surrey, and Kent are concerned. It there appears that the percentage of pauper lunatics detained in workhouses was 41·2 per cent. in Middlesex, 34·9 per cent. in Surrey, and 21·8 per cent. in Kent, whereas the true proportion of insane paupers in workhouses, after excluding those under treatment in the metropolitan asylums for imbeciles, was but 5·3 per cent. in Middlesex, 4·9 per cent. in Surrey, and 0·8 per cent. in Kent. It appears, from the report of the Lunacy Commissioners, that on the 1st of January, 1877, 11,454 insane paupers were chargeable to the various unions of the metropolis, and if to this number be added 682, representing a due proportion of the pauper lunatics chargeable to the three counties of Middlesex, Surrey, and Kent, the total number that may be attributed to the metropolis is raised to 12,136. Of this number, 55·3 per cent. were in the two county lunatic asylums, 37·2 per cent. in the three metropolitan asylums for imbeciles, 4·2 per cent. in workhouses, and only 3·3 were residing with relatives or others; thus, 92·5 per cent. were under asylum treatment. In England and Wales, exclusive of the metropolis, of 46,903 pauper lunatics, only 63·9 per cent. were under asylum treatment, whereas 23·5 per cent. were retained in workhouses, and 12·6 per cent. were residing with relatives or others. It is evident, therefore, that the asylum accommodation provided in the metropolis is very considerably in excess of that which exists in other parts of England and Wales. Such being the case, it becomes important to ascertain, so far as may be possible, the effect of asylum treatment upon the sanitary condition of the insane and imbecile. The effect of asylum treatment might be estimated from two classes of statistics—those showing proportional recoveries, and those of mortality. On the present occasion it is proposed to deal exclusively with such mortality sta-

tistics as are available for the Metropolitan Asylums for Imbeciles. In many respects mortality statistics are more definite and trustworthy than those of recovery, inasmuch as a death is a fact, whereas a recovery only signifies an assertion, which is more or less a matter of opinion.

In order that it might be possible to estimate satisfactorily the true effect of asylum treatment upon the mortality of imbeciles, it would be necessary to compile statistics of mortality among those retained in workhouses and left in charge of relatives and others, as well as statistics of those in asylums. Neither the Lunacy Commissioners' reports nor the reports of the Local Government Board, however, at present give any information as to the mortality among the imbeciles and insane in workhouses, or among those living with relatives, and the only available facts are those relating to the two metropolitan asylums at Leavesden and Caterham. As these two asylums were opened in the latter part of 1870, and were soon filled with imbeciles removed from the metropolitan workhouses, it is proposed to examine in some detail the mortality statistics among the inmates of these asylums for the six years 1871–76, with a view to consider whether such statistics afford any evidence of such improved sanitary condition of the imbeciles as might be expected to result from their removal from workhouses to asylums erected and provided for their special treatment.

The average number of inmates of these two asylums during 1871 was 2844, and in each succeeding year the average annual number steadily increased to 3836 in 1876; during the six years 1871–76 the average annual number of inmates was 3441. The number of deaths recorded in these two institutions during the six years was 2584; in 1871 the number of deaths was 468, after which, notwithstanding the constantly increasing number of inmates, the annual deaths actually declined, and in 1876 they did not exceed 372. The annual proportion of deaths to the average annual number of inmates was equal to 125·2 per 1000 in the six years. During the year 1871, the first complete year after the two asylums were established, the rate of mortality per 1000 was equal to 164·6 per 1000; during the two following years the rate declined to 127·7 and 127·5 per 1000. Thus the average annual rate during the three years 1871-2-3 was 139·9 per 1000. The rate of mortality in the three succeeding years was equal to 119·6, 125·2, and 97 per 1000 respectively; showing an average annual rate of 113·9 per 1000 during the later period of three years. Thus the average annual rate of mortality, which averaged 125·2 per 1000 during the six years, was equal to 139·9 in the earlier, and declined to 113·9 in the later, period of three years. The mortality in the second period was 18·6 per cent. lower than in the first three years. In other words, nearly 300 less deaths occurred during the three years 1874-5-6 in the two asylums at Leavesden and Caterham than would have occurred had the rate of mortality been the same as that which prevailed during the three preceding years 1871-2-3. In discussing presently the ages of the inmates, we shall be called upon to consider whether any, and, if so, what proportion of this decline in the mortality of the inmates of these asylums is due to variations in the proportions of their ages.

We may now proceed to notice the mortality statistics of these asylums, having regard to the sexes of the inmates. It has been stated that the average number of inmates of these two asylums during the six years under notice was 3441, of whom 1475 were males and 1966 females. Of a hundred inmates, therefore, 43 were males and 57 females. The deaths of males during the six years were in the proportion of 151·0 per 1000 annually, whereas the annual proportion of deaths of females did not exceed 105·8 per 1000. The death-rate of males, which was equal to 178·0 per 1000 during the first three years, declined to 129·2 in the following three years. The death-rate of females was equal to 110·9 per 1000 during 1871-2-3, and declined to 102·6 in the three years 1874-5-6. Thus the decrease of mortality in the second compared with that in the first period of three years, was equal to 27·4 per cent. among the male, and to but 7·5 per cent. among the female inmates of these asylums. The excess of mortality is undoubtedly greater among the males than among the females in these asylums, but this affords scarcely a sufficient explanation of the small decline in the death-rate among females compared with that which appears to have occurred in the death-rate among males.

We next propose to consider these rates of mortality with a view to ascertain what proportion of the rates may be attributed to the deteriorated physical condition of the inmates, of which imbecility or lunacy is one of the more obvious results. With this object in view, the first essential was to ascertain the ages of the inmates. This information, the importance of which is still entirely ignored by the Lunacy Commissioners, and is insufficiently recognised by most of those who deal with statistics of this nature, was not readily accessible. We have, however, received invaluable assistance on this and other points of the present investigation from the late and present medical superintendent of the Leavesden Asylum, and also from the medical superintendent of the Caterham Asylum. Relating to Leavesden, we were furnished with a complete return of the ages of the asylum inmates on 4th Sept., 1876; and returns of the ages of the first 1016 patients admitted to the asylum, and of about an equal number more recently admitted. From the annual reports for Caterham (which unfortunately relate to years ending September, instead of to the natural years) we obtained the ages of all the inmates admitted during the seven years ending September, 1877. Dividing the inmates of Leavesden in September, 1876, into four groups of ages, it appears that 5 per cent. were of persons aged under twenty years, 37 per cent. were aged between twenty and forty years, 36 per cent. between forty and sixty, and 22 per cent. were aged upwards of sixty years. Having due regard to this age distribution, the *normal* death-rate in this population, in accordance with the English Life Table, would be equal to 26 per 1000. The ages on admission of 3848 inmates of Caterham admitted during the seven years 1871-7 show 14 per cent. under twenty years, 28 per cent. between twenty and forty, 30 per cent. between forty and sixty, and 28 per cent. aged upwards of sixty years. These proportions would give an annual *normal* death-rate (calculated by the English Life Table) equal to 29 per 1000, or 3 per 1000 higher than the *normal* rate in the Leavesden population. We shall have reason to refer to this difference when the mortality in the two asylums is compared. It may be noted that, on account of the higher average age of the female inmates, the *normal* death-rate among males enumerated at Leavesden in September, 1876, was but 24·6, while it was equal to 27·5 among the females. The *normal* death-rate among the inmates of these two imbecile asylums, both of males and females, exceeds that among lunatics in county and other asylums; the *normal* death-rate of imbeciles is 27·8 (taking the mean of the figures for Leavesden and Caterham), while that of lunatics does not exceed 24·9. This is due to the larger proportion of aged inmates in the imbecile than in the lunatic asylums.

It has been stated that the average annual death-rate among the inmates of Leavesden and Caterham during the six years 1871–76 was equal to 125·2 per 1000, and as the *normal* death-rate of an English population at similar ages is only 27·8, it may be calculated that the excess annual death-rate, due to the special infirmities of the inmates, was 97·4 per 1000. In other words, the mortality was nearly five times as great as it would be in an ordinary English population at similar ages. It is worthy of note that during the same six years the average annual death-rate among lunatics in county and other asylums did not exceed 101·3 per 1000, which, after due allowance for difference of age, was considerably below the death-rate among the inmates of the metropolitan asylums for imbeciles. In lunatic asylums the actual rate was 4·1 times the normal rate, in the imbecile asylums the actual rate was 4·5 times the calculated normal rate. It is important, however, to notice that this excess of mortality in the imbecile asylums was entirely confined to the early years of those asylums, when the inmates had only recently been removed from workhouses; the mortality has now fallen below that prevailing in lunatic asylums.

The excess death-rate, due to the exceptional infirmities of the inmates, is considerably greater among males than among females. Adopting the age proportions enumerated at Leavesden in September, 1876, the normal death-rate among the male and female inmates was, as before stated, 24·6 and 27·5 per 1000 respectively, and as the average annual death-rate in the two asylums during the six years was 151·0 per 1000 among males, and only 105·8 among females, the excess death-rate among males is comparatively greater than among females. The recorded death-rate among males was 6·1 times the *normal* death-rate, whereas the recorded death-rate among females was not more than 3·8 times the *normal* rate.

In a subsequent article the rates of mortality in the sister asylums at Leavesden and Caterham, which show remarkable differences, will be separately considered and compared.

THE LANCET.

LONDON: SATURDAY, APRIL 27, 1878.

AFTER spending probably £1200 or £1400 the Council brought its deliberations on the Medical Bill of the Government to a close on the 17th inst. It would be interesting to know how much time and money the Council has spent in the last ten years in debating the most elementary questions in medical reform, chiefly that of the one-portal system. The profession is united on that subject. So was the Council—at least practically—in 1870. But at the recent meeting the division on the subject was considerable. As one of the members of the Council expressed it, the division was national as distinguished from rational. All the Scotch members voted against the introduction of clauses to compel the bodies to form Conjoint Boards; and all the Irish members, with the honourable exception of Dr. HUDSON, the Irish Crown member, voted the same way, leaving the vindication of the one-portal system to the representatives of the English bodies. There is a provincialism, almost a parochialism, about this action of the Scotch and Irish members, which is unworthy of them and of the great schools which they represent. With the present constitution of the Council we have no guarantee that seven years hence it will not spend another week and £1200 or £1500 more in debating the question of Conjoint Boards, perhaps in affirming it; and then, after the lapse of seven years, showing the same kind of division into nationalities which it has just displayed. Such an exhibition twenty years after the abolition of all territorial limitations of practice, is a phenomenon requiring explanation; and it has its explanation in the constitution of the Council, which is pre-eminently representative of medical corporations and schools. Before the Council met we expressed a belief that the Duke of RICHMOND would have an opportunity of studying the working of the Medical Council as at present constituted. He has had the opportunity. He has seen it go far to contradict itself, and that on a question on which it was seven years ago in harmony with itself, with the profession, and the public. The Lord President will soon hear from the profession what he does not of course hear from the Council—that the constitution of the Council needs amendment in the direction of reducing the representation of teaching and examining bodies, and increasing the direct representation of the profession. If he will study the discussions and divisions of the Council he will find in them the best argument for this change, without which it is very doubtful whether any Medical Bill will be allowed to pass. A better Bill than the present, brought forward by an equally strong Government, was wrecked in the House of Commons because this reform was not included in it. The Duke of RICHMOND has only to compel the consolidation of the licensing authorities, and their action on equal terms, both as regards cost and severity of examination, and to amend the constitution of the Council so as to make it more representative of the profession and less so of its corporations, to secure for it the hearty support of the profession at large and of the public.

We referred last week to the rejection by the Council, on the motion of Dr. PITMAN, the representative of the College of Physicians, of one of the fundamental principles of the Duke of RICHMOND'S Bill—the assigning to the Medical Council the duty of framing examination-rules for securing that the double qualification to be granted under the Act shall be granted on equal terms. The Council, made up predominantly of representatives of examining bodies, regarded this as an invasion by the Council of the prerogative of these bodies. This incident is exactly the illustration which needs to be studied by the Lord President, and all who wish to make a complete settlement of medical reform. The Medical Council, if perfectly independent, would clearly be the right body to initiate, and from time to time modify, examination-rules for securing uniformity; but while it is composed of persons who, however independent personally, sit at the board as official representatives of bodies that have long dispensed half-diplomas on imperfect examinations, it is not in human nature to expect them to prefer the Medical Council to their own body. The Medical Council as at present constituted is a timid body. As we have sometimes said, it is a complex glass house made up of glass houses. Anything like stone-throwing is by mutual consent discouraged. The members naturally respect the traditions and history of their own body, and yet feel that the bodies are too numerous. Conglomerated together in the Medical Council, the real work of a Medical Council is hindered by having to be considered with respect to nineteen bodies, and the maintenance of their traditional interests.

The Lord President made much, in his speech introducing the Bill, of Clause 3, which requires double qualification as a condition of registration; double qualification being defined as a medical diploma granted to a person who has obtained *a qualifying certificate from a Medical Board under the Act*, or TWO of the qualifications described in Schedule A of the Act of 1858. Henceforth, if this Bill should become law, no person will be registrable who holds only one qualification, though it be a double one, like the Licence of the College of Physicians of London. It sounds very well to say that henceforth one-sided diplomas shall not be registrable; but apart from the compulsory institution of complete and capable examining boards, the requirement is a mere sop to the corporations. The Council very properly accepted the principle of this clause by approving that no one should henceforth be registered whose knowledge had not been tested in Medicine, Surgery, and Midwifery, but with equal propriety it associated its acceptance of the principle with a reference to its previous vote on the subject of Conjoint Boards. If half-diplomas are to be swept away, let us at the same time sweep away half-examinations. But on this question again the division of the Council was painfully shown. The minority were 10 in number against 13, and were so prepossessed with concern for the individual action and interest of their own bodies, that they would have hailed a Bill that would require every man to pass two almost identical examinations, just that he might pay for two half-diplomas instead of a complete one.

Here we must take leave of the meeting of the Medical Council for the present. There are other parties to be con-

sidered in regard to the amendment of the Medical Acts, and the sooner and the more clearly they make themselves heard the better. The Medical Council has shown both its weakness and its strength. It is made up of individuals than whom, considered in their individual capacity, none could be more fit to advance medical education and elevate medical practice. But we have seen their individual action so warped by corporate considerations that they have assumed on imperial questions a parochial attitude. The moral we leave to his Grace the Duke of RICHMOND.

THE recent debate, or rather exhibition of specimens illustrative of disease of the lymphatic system at the Pathological Society cannot be regarded with unmingled satisfaction. We have persistently advocated the exhibition of such classified specimens, and the steps which have been made in this direction during the last two years we decidedly approve. But it is questionable whether the present attempt quite comes up to the standard to be desired. Two distinct objects are aimed at—one the exhibition of specimens illustrative of a particular disease or set of diseases; the other the discussion of their bearing on general pathology and their relations to other morbid processes. Theoretically the two might be combined; practically it is found difficult, if not impossible, to combine them. Last year the exhibition of specimens of syphilitic disease had been preceded the year before by a discussion on the general pathology of the same disease, and there was plenty of room for both. But this year the subject was ill-defined; there were no definite propositions to be established or negatived, and hardly any discussion of the general pathology can be said to have been attempted. Moreover, the necessity for the description of specimens, and for definition of terms employed, prevented some from drawing those general deductions which their observations warranted.

But if the net result of the discussion be not a great advance in our knowledge of the general pathology of the diseases of the lymphatic system, it has served to direct attention to them; and the large number of beautiful microscopic specimens exhibited, as well as the specimens and drawings, must have aided in the diffusion of present knowledge, and afforded material for future work.

Although the subject, as stated, was a very wide one, scarcely anyone attempted to go beyond one or two diseases, if we except Dr. GOODHART'S ingenious attempt to link together all the phases of morbid lymphatic activity, and the introduction of a case of essential anæmia by Dr. DICKINSON. The two diseases to which most attention was paid were lymphadenoma and leucocythæmia.

The morbid anatomy and histology of lymphadenoma were abundantly illustrated by the specimens shown. Dr. WILKS exhibited the preparations on which were grounded the observations of Dr. HODGKIN. Dr. GREENFIELD showed a series of specimens illustrating the morbid anatomy in various stages, and Drs. GOWERS, GOODHART, WHIPHAM, COUPLAND, TURNER, and others, also exhibited and described similar specimens. The morbid anatomy and the histological changes in different organs were thus very thoroughly shown. So also were the changes which occur in leucocythæmia, and thus far the discussion was a success.

There were, however, several points which we should have been glad to have had cleared up. "Lymphadenoma" and "Hodgkin's disease" seemed to be used throughout almost as convertible terms; the one as signifying the nature of a new growth, the other the disease in which the new growth occurs. But hardly sufficient attention was paid to the question whether there are not several distinct classes of lymphadenoma. Such distinctions have been recognised both by continental and English observers. There is a great difference between a local tumour of newly formed adenoid tissue and a general process of hyperplasia of the lymphatic glands of the body; and between these there are intermediate grades, perhaps distinct enough to be divided into groups. Several speakers evidently recognised this distinction; yet none, except Dr. MOXON, clearly defined it. Dr. GOWERS made a suggestion of great value in applying the term *lymphadenosis* to the constitutional condition resulting from implication of the general glandular system in the process of growth of lymphadenoma; but the term leaves open the question whether all forms of the growth are capable of producing it. Dr. GREENFIELD implied a similar view for the class of cases to which he limited the term "Hodgkin's disease," in which, he endeavoured to show, the growths have a local origin, implicate the general glandular system by infection, and give rise to certain definite constitutional symptoms; but he did not give a complete differential classification. Dr. GOODHART attempted the most extensive comparison, but he perhaps erred in extending his view to too wide a range of morbid processes. Yet, on the whole, it was evident that most of the speakers were rather in favour of making a distinct class of the cases of *adénie* or lymphadenosis, whether they regarded the disease as due to a particular form and type of the growth or its mode of diffusion, or as the result of its constitutional effects.

The pathology of leucocythæmia was but little illustrated directly, but some very important statements were made as to its relation to lymphadenoma. There has of late been a tendency to regard leucocythæmia as intimately associated with lymphadenoma, and most German writers have apparently accepted the view that one form of leucocythæmia is associated with lymphadenoma (the so-called lymphatic leukæmia), another with splenic disease (splenic leukæmia). The leukæmia or leucocythæmia is, according to them, a secondary condition, due to the accumulation of white corpuscles in the blood, which may arise from excessive production in the lymphatic glands or in the spleen, in the lymphatic variety the corpuscles being on an average smaller than in the splenic variety. This view was well expounded by Dr. PYE-SMITH. It has never, however, been satisfactorily shown that the condition is due to over-production in the spleen, and not to defective metamorphosis of the leucocytes, or abnormal processes in the blood itself; nor is it clear that the changes in the spleen, which are highly variable, are not secondary to the blood change. Putting aside the question of similarity of symptoms and results in lymphadenoma and leucocythæmia, we meet with the question whether there is, as a rule, any increase in the number of leucocytes in lymphadenoma? The evidence against this was very strong—Dr. WILKS, from a very large experience, Dr. MURCHISON, Dr. MOXON, Dr. GOWERS, Dr. GREENFIELD, and Dr. GOODHART, all agreeing that in the very large majority of cases there was no perceptible increase. And

the other evidence, derived from the condition of the spleen and the nature of the growths found in leucocythæmia, served to confirm the view of the distinctness of the two diseases as commonly met with. For the small minority of cases, such as that so ably described by Dr. RIDGE JONES, other explanations seem admissible: it may be that the glandular affection is of a different nature, and is due possibly to accumulation of leucocytes in the glands, or that the two conditions are accidentally associated. Mr. MACNAMARA'S very interesting observation on the condition of the bones in these diseases may throw some light upon the nature of the change in the glands.

The intimate pathology of the processes in question was not at all fully discussed, and perhaps the subject is hardly ripe for such a discussion. Everyone must have regretted that the remarks of Dr. PYE-SMITH and Dr. MOXON should have been deferred to so late a period of the meeting, and the attention with which the latter speaker was heard at so late an hour evidenced the general interest in the questions raised. Dr. PYE-SMITH ably represented the view of the German school, the tendency of which is to group together all the diseases in question, and even to include pernicious anæmia amongst lymphatic diseases; whilst Dr. MOXON defended with great ability and sagacity their separation into distinct classes of disease. Space forbids us to enter into all the points raised. Both the speeches are well worthy of consideration. Whichever view is correct, the attention directed to the relations of lymphatic diseases will no doubt bear fruit, and the cases recorded will afford material for more general conclusions.

A RECENT number of *The Field* contains a letter signed "Anti-Gate-Money," in which the writer enters a vigorous and much-needed protest against "exhibitions of endurance" such as those which have recently engaged so much public attention. The particular feats enumerated are "swimming across the Channel, walking a thousand miles in as many consecutive hours, fifteen hundred miles in the same style, walking for six days, walking and running for the like period, walking at high pressure for twenty-four hours," &c.; and it is very properly suggested that, while heroic exploits involving great endurance, when performed for some great and good motive, are admirable, exhibitions of the class specified ought to be condemned and might even be prohibited. We are glad to see these sensational achievements, in which grave risk is incurred and strength wasted, repudiated by the lovers of sport. Certainly they have no claim to be considered intelligently manly, and it is satisfactory to find that they are not appreciated by those who set the highest value on feats of strength and physical capacity when performed as a pastime.

Looked at from a physiological point of view, there is something incongruous with the instincts of natural science, to the extent of exciting a feeling of revulsion, and even of loathing, in the idea of a human being, needlessly and for gain, taxing his powers of endurance to the verge of exhaustion. We do not say experiments of the class should never be undertaken. It is advantageous and necessary to ascertain the limits of strength, and the minimum of repose which may be sufficient for the recuperation of the physical organism, under exceptional circumstances. The knowledge that excessive fatigue can be encountered without inevitable or irrecoverable collapse may sustain the spirit of some heroic band of men serving their country or the cause of humanity, in an emergency. The investigation is, however, of such a nature that we think it falls distinctly within the range of physiological experiments which should be conducted by experts, with simply scientific purposes. When matters of this class come to be paraded before the public as entertainments, they cease to be commendable, and ought to be condemned.

Endurance prolonged beyond the natural limits fixed by the warning symptoms of *fatigue*, is simply a raid on the reserve forces of vitality. To secure the degree of tension at which all organisms work their best, with the least friction or self-injury of any kind, Nature has instituted a system of reserves: residual air in the lungs, tonicity in muscular tissue, elasticity in bloodvessels, and an equivalent state of resilience in the nerves and centres of nervous force. There is always a balance in the account on which, at a push, the Will may call, and upon the amount and integrity of this reserve, not merely the ultimate capability in an emergency, but the normal discharge of function depends. For example, if the reserves have been exhausted by disease, or excessive labour of body or mind, the ordinary duties of life will be discharged with difficulty and at the constant peril of collapse. The craft is in shallow water, and may at any moment be stranded. The same condition—resting on the reserves—is reached in the case of individuals exhausted by dissipation, and deriving their daily strength *from these sources* by the perpetual use of stimulants. The performer who achieves a startling feat of the class so much applauded in these strange days, is in fact doing nothing better or more noble than using up all, or nearly the whole of, the strength which has been stored up in reserve within his organism with the double purpose of giving tension and elasticity to the body and endowing the mind with certain physical supports which it may be able to call into operation in a crisis or extremity. The "call" on this inner stock of force is a trick rather than a feat, and by practice and training it may be rendered so facile that the precise moment when the limits of normal strength are passed, and the monitory sensations of *fatigue*—the janitor placed in charge of the reserves—is overcome, may not be apparent even to the performer. He is not, however, the less in peril because he has silenced the warning voice of nature. There is no other sentinel within. Having once passed "fatigue" he may press on to sudden collapse, from which recovery will be impossible because there is no reserve of force upon which to call in this last extremity.

All these facts are perfectly well known to our readers, but they should be made plain to the public. Seen in their true light and aspect, performances of the order justly condemned by "Anti-Gate-Money" in *The Field* will be recognised as unreasoning levies on forces which Nature has provided for other and more excellent purposes than idle display. Of course, it is always possible for the possessor of a moderate income, derived from stock, to increase his expenditure by selling out and squandering his capital; but the financial exploit will have small claim to credit, and, from sensible folk at least, earn scant applause. What the spendthrift so acting would do with his property the sensa-

tional performer of feats in which endurance is carried to the verge of exhaustion does with his vital strength, and the achievement is in no rational sense more astonishing or respectable.

Annotations.

"Ne quid nimis."

POISONOUS TOILET AND NURSERY POWDERS.

FRESH evidence reaches us of the disastrous effects produced by the adulteration of violet powder with white arsenic. A medical man writing on Wednesday narrated the cases of four infants now under his care. The immediate effects seem to resemble an outbreak of erysipelas. The matter is so serious that attention ought to be directed to the cause. We fear there is too much reason to apprehend that the particular instance of "accidental" adulteration which has created the present panic is exceptional only as regards the manner of the occurrence. The powder commonly sold is not by any means innocuous, and for the present, at least, the public will do wisely to exercise especial care.

PNEUMONIA FROM RAILWAY SHOCK.

A CASE decided recently at the Leeds Assizes, before Mr. Baron Pollock, cannot be very reassuring to the railway companies. Hitherto the results of accidents for which they have been called upon to compensate the sufferers have been confined to the direct effects of injuries, the simple traumatic consequences, or the changes which those lesions initiate. But now it would appear they must include among the occasional effects of their collisions at least one disease commonly unassociated with "surgical" lesions, even on the broadest and most inclusive grouping—acute pneumonia. Of course, pneumonia may result from a wound of the lung, but in this case there was no such connexion, and it was urged that a pneumonia occurring as the only sequel of an accident which caused no wound or contusion that could directly damage the lung, was the result of the accident. The case is thus of great medico-legal importance, and it is also of much pathological interest. The sufferer had died of the lung disease, and the action was brought by his widow, who stated that her husband was in good health on the morning of June 19th, when he left home. In the railway journey to Sheffield that day a collision occurred between the train in which he was travelling and an express, and in the collision he was, according to his subsequent statement, considerably shaken, being, he thought, thrown against the front of the carriage. He was much frightened, and was helped out of the carriage. He was driven to his destination, where he transacted some business, and asked for a chair, stating that he felt faint, and that his back was hurt. On arriving home in the afternoon he had a frightened, haggard look. Mr. Bennett, of Cleckheaton, found on examination that his breathing was hurried, and that he complained of pain in the chest and back. No external bruise or injury could be detected, but the right side of the chest was extremely tender. The next day some signs of pneumonia were apparent in the side, and the inflammation gradually spread, and apparently, on June 26th, signs of pleurisy were added to those of the pneumonia. The diagnosis was confirmed on July 3rd by Dr. Clifford Allbutt, and on the same day the patient died. The diagnosis was confirmed also by a post-mortem examination. Mr. Bennett expressed his belief that the pneumonia was the result of the shock to the nervous system, which interfered with the circulation of the blood through the lungs. Dr. Allbutt also was of opinion that the railway accident was the cause of the pneumonia. He was subjected to a searching cross-examination, and could not state that he had ever known a case of pleuro-pneumonia caused by a shock, in which there was neither broken rib, bruise, laceration of the pleura or lung, or effusion of blood, although his impression was that he had read of such cases. In reply to further questioning, as to whether pneumonia did not arise from changes in the blood, and whether he could suggest any other way in which it might be caused, he frankly disclaimed for himself, and the human race, "the slightest knowledge" of the causes of pleuro-pneumonia. Mr. Jessop, however, came to the rescue with a very pertinent case. He had known an instance of a man who had fallen over the edge of a quarry and had broken his thigh. There was no evidence of other injury in any part of the body, and yet pleuro-pneumonia set in. Dr. Eddison, who had been present at the post-mortem examination of the body of the plaintiff's husband, expressed a corroborative opinion as to the cause of death. The case then terminated by an agreement on the part of the counsel for a verdict against the Company with £1500 damages. In a case in which such different opinions might, very honestly, have been held it is a matter for congratulation that the customary spectacle of conflicting medical evidence was avoided. The opinions expressed were certainly, considering the circumstances of the case, reasonable. There can be little doubt that the man's death was the result of the accident, and that it was caused by the pneumonia, although how the latter resulted is by no means clear, and is of less practical than pathological importance. It is certain that mental or physical nerve shock may cause profound visceral changes, and it is highly probable that it may give rise to pneumonia. At the same time, the cases on record, which are not numerous, of pneumonia without direct and obvious injury to the lung, are those in which there has been abundant contusion of the thorax, and it would seem probable, from the tenderness which existed, that such contusion occurred in this case. The possibility of a direct injury to the vascular tissue of the lung, leading, in the depressed nervous condition of the patient, to a progressive and excessive inflammation, cannot be so excluded as to render the purely neurotic theory one of high probability. It is much to be desired that a careful account of so instructive a case should be placed on record.

THE ELECTION OF OPHTHALMIC SURGEON AT ST. THOMAS'S HOSPITAL.

AS we briefly announced last week, Mr. Edward Nettleship has been elected ophthalmic surgeon at St. Thomas's Hospital. It may seem ungracious to refer to a contest which is now settled, but on public grounds we feel bound to remark on a question raised in the canvassing. The election, as is well known, is entirely in the hands of the governors, but, as a rule, the majority of them have been content to leave the decision with those of their number who are most interested in and acquainted with the affairs of the hospital. Moreover, of late, we understand, there has been a disposition to consult the opinion of the medical staff in making appointments in the hospital, although they have no other right in the matter. On the present occasion the names of the candidates were placed before the staff, and their opinion asked as to their relative qualifications. That opinion was, we understand, unanimously in favour of Mr. Nettleship.

We have always upheld the view that, although the staff of a hospital should not have the power of election, their opinion ought to be consulted in the choice of candidates. There is no doubt that in small hospitals, election, whether virtual or nominal, by the staff is liable to abuse; but in

the case of a large public hospital like St. Thomas's, with a staff of about twenty members, it is in the highest degree improbable that all should individually decide in favour of any one candidate, unless he possessed conspicuous merit, nor could they all be influenced by any personal or private considerations. That their opinion should be consulted and valued by the governing body of the hospital is, too, only natural, for to them is committed by the governors the carrying out of the work for which a hospital is designed; they are fully acquainted with the needs of the hospital and school, and have a most vital personal interest in their welfare. To ignore the opinion of the staff would be to stultify their position and the good sense of the governors who elected and maintain them in their office.

PUERPERAL MORTALITY IN LYING-IN CHARITIES.

THE remarkably favourable mortality statistics issued from time to time by lying-in charities, and the excessive puerperal fatality shown by all statistics of lying-in hospitals, cannot be ignored in discussing the relative advantages of such charitable institutions. Each year adds to the available evidence both of the low mortality in maternity charities and of the excessive mortality in hospitals. It appears, from the recently issued report, for 1877, of the Royal Maternity Charity, which was instituted in 1757 "for delivering poor married women at their own habitations," that during last year 2987 women were delivered under its auspices, and that the deaths among the women delivered were but 9, of which 6 were from puerperal and 3 from non-puerperal causes. Thus the deaths of women from puerperal causes were only in the proportion of 2 per 1000 women delivered, and, after correction for twin and still-born cases, in the proportion of 2·1 per 1000 children born alive. In the whole of London last year the deaths of women referred to puerperal causes were in the proportion of 4·0 per 1000 children born alive, or nearly double the rate of mortality among the cases attended by the Royal Maternity Charity. The mortality statistics of this charity are so satisfactory that it is to be regretted that more precise information is not given in the report as to the mode in which these statistics are collected. It is important to know what measures are taken to ascertain the health of mothers, and at what period after delivery. In the more recently established Birmingham lying-in charity the midwives are instructed to ascertain and report upon the health both of the mother and of the infant thirty days after delivery; this gives precise value to their statistics of mortality both of mothers and of infants. It is very evident that as regards the infants no such rule exists in the Royal Maternity Charity, as only 13 deaths of infants are reported among the 2938 born alive during the year; whereas, according to the English Life Table, of 1000 born alive 46·5 die during the first month of life, at which rate the deaths among the 2938 Royal Maternity infants would have been 137 instead of 13, as reported. It is because we are convinced that a well-managed maternity charity might and does exercise a powerful influence in reducing infantile mortality that we take exception to the looseness of the Royal Maternity's statistics on this point. The proportion of twin cases attended by this charity in 1877 slightly exceeded 1 per cent., and 2·7 per cent. of the infants were still-born, which is very considerably below the average that usually prevails in lying-in hospitals, and also far below the proportion prevailing in countries where still-births are recorded. The report states that 94 of the 2987 deliveries were "physician's cases." Does this signify that medical attendance was provided in but 3·1 per cent. of the deliveries? With regard to the cost of this form of charity, it appears that the year's expenses of the Royal Maternity were £1532, or equal to as nearly as possible ten shillings per delivery. An examination of the balance-sheet suggests that this average might be reduced if the operations of the charity were extended, and it may be hoped that the appeal made by the charity for funds for enlarging its sphere of usefulness will not be made in vain.

THE BRITON LIFE ASSOCIATION (LIMITED).

THIS Life Assurance Society, which is, *par excellence*, one of the "medical" offices, has completed the second year of its new existence, or, to speak more precisely, the new enterprise which grew out of the old has entered upon its third year. During the last twelve months the directors have received 1084 proposals, against 1073 offered in the preceding thirteen months. This shows a healthy state of business, and bespeaks confidence. During 1877, 796 new policies were issued, assuring £233,223, and adding £7697 4*s.* 9*d.* to the revenue from premiums. The contingent claims of the year amounted to £1250, arising on four deaths. The working expenses are large, but the greatest economy is being exercised, and with a new office, especially one which, like the Briton—as constituted under the recent Act of Parliament—has taken over a fully organised and apparently efficient machinery, well distributed throughout the country, it would neither be politic nor possible to reduce the expenditure. At the present rate of increase, the new business seems likely to reach the proper proportion to cost at no distant period, and the shareholders will find their interests best secured by judicious rather than energetic economy. During the two years the new office has been at work it has accumulated a total premium income of £14,173 4*s.* 2*d.*, which is reduced by reassurances to £13,587 11*s.* 2*d.* The total revenue of the concern from all sources amounted last year to £69,430 9*s.* 9*d.*, and the working expenses, including the cost of services rendered to the old Briton Association, were £11,355 16*s.* 7*d.* The management is wisely intent on meeting the needs of the profession by the liberality of its dealings with medical men assuring, and in the question of "fees" the policy is eminently satisfactory. Looking as closely into the statements as we are able, and having regard to the Act of Parliament under which the business is carried on, it is impossible not to feel that the establishment has high claims to confidence, and a peculiar ground of appeal to the profession for whose immediate advantage, first the old office, and since 1875 the new one, have been specially instituted.

EDUCATION OF MIDWIVES.

EVERYBODY must be gratified at the prospect of some legislation that will favour the education of midwives. By substantially approving of Section 1 of Clause 24 the General Medical Council raises the expectation that it will undertake to submit a scheme to the Privy Council for the examination, licensing, and registration of midwives. Though the work to be done in the way of examination or registration may be chiefly local (as recommended by the Council), the Council, in our opinion, would have done better to have declined the initiation of schemes, and contented itself with some right of supervision and criticism. The Council has far too much to do already to do this work well, even if it were fitted for doing it. The work will be likely to entail a considerable amount of labour, and the Council will have to be taking advice constantly from the Obstetrical Society. Nevertheless we are glad at the prospect of a race of fairly educated women, who will know the difference between a head and an arm presentation and the general principles upon which a lying-in woman should be treated. Seeing that many poor women cannot afford to have a medical practitioner, it is a matter of State importance that they should be secured from gross ignorance in their midwives.

TYPHUS AND RELAPSING FEVER IN ST. PETERSBURG.

AT a meeting of the Public Health Society of St. Petersburg on April 6th, Dr. Hubner read an important report on the prevalence of typhus and other fevers in that city. An investigation instituted by the Society had brought to light that at the time of the meeting there were in St. Petersburg 1675 cases of petechial typhus, 1196 cases of relapsing fever, 761 cases of enteric fever, and 115 cases of simple continued fever. During the months of January and February petechial typhus had made great progress in the capital, and the Society's Committee of Investigation were convinced that this was due to the successive importations of the disease from the seat of war, to the overcrowding existing in the city, and to the insufficiency of the means at command for isolating the sick. Among the earliest to be attacked by the disease were the medical men attending upon the cases and the nurses, especially the latter. The clothing of the sick played an important part in the dissemination of the malady, few of the hospitals being provided with disinfecting ovens, the infected clothing being simply exposed for a short time to the air or returned to the relatives of the sick without such exposure. The indiscriminate visiting allowed to be made to the sick by their friends, and the use of hired vehicles for the conveyance of the sick to hospital without subsequent disinfection, contributed also to the spread of the disease. The committee make the following suggestions in view of limiting the further spread of the disease:—(1) The establishment of a sanitary supervision over the food distributed to the poorer classes of the population; (2) to regulate the disposal of the refuse of the population, and to secure a good potable water for its use; (3) to furnish the poorer classes with warm food; (4) to provide also for them fuel and clothing; (5) to institute a sanitary inspection of houses; (6) to form houses of refuge for families removed from their houses while these undergo disinfection; (7) to organise hut-hospitals outside the city, and to remove the typhus patients from the general hospitals; (8) to give more space to the sick in the hospitals; (9) to disinfect the clothing of the sick; (10) to prohibit the children of families in which typhus exists attending school; (11) to regulate the number of visits to be made to the sick by their relatives; and (12) to ask the assistance of the municipality in the execution of these measures.

The first temporary "fever-hospital" in St. Petersburg was opened on the 6th April, the building formerly used as a depôt for fire-engines having been furnished for the purpose.

LARYNGOSTROBOSCOPY.

THE actual vibrations of the vocal cords during the production of sounds have hitherto eluded direct observation. According, however, to a publication by Dr. Oertel, of Munich, their observation is a matter of little difficulty, and is likely to afford instructive information regarding the physiology of the voice. It is only necessary, he asserts, to employ a light sufficiently strong, and to provide an arrangement by which it shall be rapidly interrupted, to render the vibrations visible. The effect of the interruption of the light is to retard the perception of the individual vibration, or rather to prevent their impression on the retina from being modified before it can be perceived. Thus it is possible not merely to observe accurately the vibrations of one of the vibrating cords, but also to compare the vibrations of one with those of the other. The light which is employed must be of the most powerful character, by preference direct sunlight, or the electric or oxyhydrogen light. The interruption may be conveniently produced by a perforated diaphragm revolving rapidly, and at a rate proportioned to the rapidity of the vibrations of the sounding cord. Or it may be interrupted by a tuning-fork, and in the latter case a note should be chosen of the same height as that produced by the larynx under observation, or an octave from it. The interrupting apparatus must be placed between the light and the laryngoscope mirror, or behind this mirror between it and the observer; the latter is a convenient position for the revolving diaphragm when a little practice in its use has been obtained, and the diaphragm can be turned by the hand at the needful rate for observing the vibrations at a given note.

When a chest-note is uttered the laryngoscope shows the vocal cords vibrating in their entire extent, and the sharp edge cannot be seen. By the interrupted light these vibrations may be separated into the movements of which they are made up, but are seen to be still vibrations of the vocal cords as a whole. When, however, a falsetto-note is uttered the vocal cords are seen to be apparently scarcely moved, and with the interrupted light this is seen to be due to the circumstance that the cords are vibrating in sections, two or three, according to the height of the note, the sections being divided by one or two nodal points.

THE MEDICAL COUNCIL AND UNQUALIFIED ASSISTANTS.

SIR DOMINIC CORRIGAN, who is distinguished by anxiety for the efficiency of Poor-law medical officers, moved the Council to draw the attention of the Local Government Board of England to a "practice which it would appear exists in England, of practitioners in charge of medical relief districts employing unqualified assistants to act for them in the treatment of medical and midwifery cases, tending to the detriment of the public and other evils." Sir Dominic referred to the rule in Ireland requiring the personal performance of duties, and not permitting a substitute unless fully qualified. Sir Dominic is to be praised for raising this question; but, as we understand the matter, the rule is very much the same in England as in Ireland. The medical officer is bound, as far as practicable, to do the duty himself, and where he cannot, to find a substitute. An assistant may act as a substitute, but he must have at least one qualification, and be registered.

THE NORTHAMPTONSHIRE AND MIDLAND COUNTIES SANITARY ASSOCIATION.

THE first meeting of this Association was held on Monday, the 15th inst., in the Guildhall, Northampton, under the presidency of the Ven. Lord Aboyne Compton, M.A., Archdeacon of Oakham. Mr. Edwin Chadwick, C.B., read an elaborate and interesting address on the sanitary work to be done in Northamptonshire, dwelling much upon the money loss to the public which death and sickness always entail, and combating the false notion that human productiveness is antagonistic to prosperity. He congratulated the county on the formation of this society, which had grown out of the Sanitary Inspectors' Association of the Northamptonshire Combined Sanitary Association, established in 1873 by Mr. Haviland, for the mutual improvement of the seventeen inspectors under him.

At the meeting of the inspectors the subject of householders giving immediate information to sanitary authorities of the existence of infectious diseases in persons under their charge, or residing in their houses, was discussed, and it was resolved to memorialise the Legislature with the view of urging it to so far amend the Public Health Act of 1875 as to make the giving such information compulsory. After some remarks by the Rev. H. Waller, rector of Twywell, Mr. Haviland explained that the Metropolitan Medical Officers of Health Association had taken the subject up seriously, and would be glad to have their hands strengthened by such a resolution as the one adopted.

THE PROFESSION AND THE MEDICAL BILL.

THE history of the last Medical Bill showed very clearly that if the profession cannot pass a Bill without the assistance of Government, Government can scarcely pass one against the wish of the profession. The time is at hand when the profession must make its voice heard. Every Medical Society in the country should give its opinion at this crisis. We would suggest that they should address themselves to securing mainly two great ends:—First, a one-portal system, either a conjoint portal, or what is, in our judgment, much more desirable, an examining board in each division of the kingdom, entirely independent of the existing corporations. Secondly, an alteration in the constitution of the General Medical Council, in the way of reducing the number of corporation and university representatives, by making two to combine, as the Scotch universities do, for electing a joint representative, and giving new seats so created to Crown members and direct representatives of the registered members of the profession. Whatever the views of the profession, an organisation should be at once instituted in every district for their expression, and for petitioning both Houses of Parliament. Members of the House of Commons ought to be specially communicated with, and urged to use every constitutional means of opposition unless these points are conceded.

INFANT MORTALITY IN LEICESTER.

IN 1877, as in previous years, Leicester showed the highest rate of infant mortality among the twenty largest English towns. The proportion of deaths under one year to births, in 1877, ranged in these twenty towns from 133 and 143 per 1000 in Portsmouth and Sunderland, to 188 and 189 in Liverpool and Leicester. Whereas the death-rate from all ages in Leicester during last year was considerably below the average rate in the twenty towns, the rate of infant mortality exceeded that which prevailed in any of the other towns, and was even higher than the Liverpool rate. During the eight years 1870–7 the rate of infant mortality within the borough of Leicester averaged no less than 221 per 1000, while in Portsmouth it did not exceed 144 per 1000. The Leicester rate in these eight years was slightly exceeded in Liverpool, where it was equal to 225 per 1000. The excessive waste of infant life in Leicester, in conjunction with a moderate death-rate at all ages, invests the vital statistics of that borough with exceptional interest, which is not lessened by the well-known fact that the infant mortality is mainly caused by the excessive fatality of summer diarrhœa. We must confess to disappointment at the scant information afforded on these points by Dr. Crane's report upon the sanitary condition of Leicester in 1877, which has been recently issued. The report is indeed singularly devoid of interest, and the arrangement of the tables is not fortunate. With regard to the mortality from diarrhœa, Dr. Crane merely remarks, "I am happy to be able to state that there is again a considerable decrease in the deaths from diarrhœa." No allusion is made to the fact that the fatality of diarrhœa in 1877 was exceptionally low throughout England and Wales. Neither is it pointed out that although diarrhœa fatality last year showed a decline in Leicester, as elsewhere, it was again considerably more fatal in that borough than in any other of the twenty largest English towns. During the summer quarter of last year the annual death-rate from diarrhœa averaged 2·3 per 1000 in the twenty towns, while it was equal to 5·6 in Leicester. Medical officers of health not improbably feel a considerable amount of helplessness in attempts to deal with infant mortality, but this affords no excuse for ignoring the subject in sanitary reports. It may be hoped, however, that Dr. Crane's reticence on this point will not prevent the excess of infant mortality in Leicester from receiving the attention it deserves. The fact that more than 20 per cent. of the infants born in that town die under one year of age is evidence of a neglect of infant life which is discreditable to the people of Leicester.

THE TREATMENT OF CANCER BY PRESSURE.

M. BOUCHUT has recently introduced to the notice of the members of the Académie des Sciences a cuirasse of vulcanised caoutchouc, which he has used with success for the treatment of cancerous and other tumours of the breast. In this country there has been much division of opinion upon the utility of pressure in the treatment of cancer, some surgeons regarding it as harmful, or but rarely useful, others attributing to it great retardation of the rapidity of growth of the tumour, or even cure. The surgeons of Middlesex Hospital studied it systematically some years ago, and gave an unfavourable report. The theory of the plan is certainly good; a neoplasia, like a healthy tissue, is dependent upon its blood-supply for vitality and growth, and complete anæmia, causes the death of a tumour, as it does of a patch of brain-substance. It will be remembered that Mr. Haward last year related at the Clinical Society a case in point. He ligatured the left lingual artery for a recurrent epithelioma of the tongue; the tumour sloughed away, and a fortnight before the patient's death from blood-poisoning the tongue was quite healed. In just the same way ischæmia will impair the vitality and so lessen the growth of a tumour. The difficulty is rather in the practical application of this theory. The knowledge that we now possess of the mode of growth of cancers gives us at least one important indication. If we have to deal with a neoplasia that grows at the periphery by gradual infiltration of the surrounding tissues, it is plain that, for pressure to be useful, it must be applied around the tumour rather than over it, where, by compressing and obstructing the capillaries, it would cause overfulness of those at the circumference. It is the periphery of a cancer that is its active part, and we must, therefore, produce ischæmia *around* and not *in* the tumour. In the application of the treatment this must be obtained by the careful adjustment of elastic pads of cotton wool, and as the whole success of the plan depends upon the skill with which this is done, too much attention cannot be given to it. We cannot regard pressure as a substitute for removal of a cancer; but in the frequent cases where this is impracticable it appears to be the best substitute at present open to the surgeon. M. Bouchut's cuirasse would seem to be an improvement upon the spring pads and other appliances in use in this country.

THE LONDON SMALL-POX EPIDEMIC.

WHETHER judged by the registered number of fatal cases or by the reported number of cases under treatment in hospital, the London small-pox epidemic continues to assume larger proportions. During the week ending 20th instant the deaths from small-pox in London, which had risen from 42 to 58 in the four previous weeks, further rose to 80—a higher number than has been recorded in any week since the end of April, 1877. In addition to these 80 fatal cases in London, 6 others were registered in the outer ring of suburban districts. Of the 80 metropolitan cases, 30 belonged to the north, 29 to the east, 13 to the south, 4 to the west, and 3 to the central groups of districts; in proportion to population the greatest fatality occurred last week in East London.

The five Metropolitan Asylum Hospitals at Homerton, Stockwell, Hampstead, Fulham, and Deptford contained no less than 854 small-pox patients on Saturday last, 228 new cases having been admitted during the week. At the beginning of October last the number of cases under treat-

ment in those hospitals had fallen to 137, since which they have again continuously increased; at the beginning of this year, however, they did not exceed 309, while during the first three weeks of April they rose rapidly from 682 to 854. The number of patients in the Highgate Small-pox Hospital was 67 on Saturday last, an increase of 14 upon the number on the previous Saturday; 20 new cases were admitted during the week.

THE ROYAL COLLEGE OF SURGEONS.

AT a meeting of the Council of the Royal College of Surgeons, held on Thursday, the 18th inst., the President announced that he and the Vice-presidents had had an audience with the Duke of Richmond and Gordon respecting the position and prospects of the College and the proposed Medical Bill. His Grace seemed to recognise and to appreciate the difficulties and anomalies that were pointed out to him as existing in the Bill, and promised to give them careful consideration. At the same meeting a letter was read from the Faculty of the Bristol Medical School, and was then referred to the Examining Board. Sir Joseph Fayrer and Mr. Oliver Pemberton were elected Fellows of the College according to Section 25 of the Charter 15th Victoria.

VACCINATION OF DOMESTIC SERVANTS.

DURING the week ending the 20th inst., of fifty-four deaths from small-pox registered in the Metropolitan Asylum Hospitals, no less than eight were of domestic servants, six of whom were certified as unvaccinated, and two as vaccinated. These facts bear testimony to the risk which families incur of having small-pox introduced into their establishments by their domestic servants. At the present time the whole of the upper and middle classes are vaccinated in infancy, and a large number of the adults have been revaccinated, all but absolute immunity from small-pox being thus secured. There is too much reason to fear, however, that these classes take but little pains to see that their servants, and others in their employ, are similarly protected. If at an epidemic time like the present all classes in London were to use their influence to secure the efficient vaccination or revaccination of all those with whom they are brought in contact, the small-pox fatality would soon die out for want of material for its ravages. We should then not again hear of the deaths in the metropolitan small-pox hospitals of eight domestic servants within one week.

THE CHELMSFORD CASE OF HYDROPHOBIA.

WE have learned from Dr. Nicholls that the rumour of a doubt in the diagnosis of the case of hydrophobia at Chelmsford is unfounded. Of twenty-five medical men who saw the case at Dr. Nicholls's invitation, none who witnessed the early symptoms expressed any doubt regarding the nature of the disease. Dr. Nicholls's own opinion on the subject, as that of the person who had the best means of judging, and as one whose experience of hydrophobia in the past has been considerable, is entitled to great weight, and he does not consider that the nature of the affection is open to question. The case thus acquires great importance as apparently one of the rare instances of cured hydrophobia.

LAUDANUM AS A "DRAM."

OUR attention has been called to the practice of laudanum-drinking which prevails to an alarming extent in many districts. We are by no means ignorant of the deadly mischief at work. The quantity of laudanum consumed by persons taking it habitually would scarcely be credited by those who are not familiar with the facts. The system seems to acquire tolerance for the drug, which acts more as a stimulant than as a narcotic, or even what is understood by a "sedative." This last-mentioned circumstance may possibly point to the measures requisite to promote the recovery of the organism from the state of irritability and impending exhaustion which compels the individual accustomed to laudanum-drinking to continue a practice known to be injurious. There must needs be the temporary substitution of some stimulant which can itself be withdrawn, and which, while in action, will excite rather than impair the functions of digestion. Such a remedy may perhaps be found in capsicum. Ten to fifteen drops of the tincture taken in some bland fluid three or, in extreme cases, four times a day will, it is believed, in most cases render it possible to withdraw the drug instantly and permanently. The gradual disuse of the remedy will occasion little difficulty.

CHEMISTS ACTING AS APOTHECARIES.

JAMES BELLAERS, a registered chemist, of Oxford-street, Stepney, having been proceeded against in the Court of Exchequer by the Medical Alliance Association, under the Apothecaries Act, for illegally practising as an apothecary, submitted, on the 10th inst., to a judgment for a penalty of £20 and £60 costs. He will have to defray his own costs in addition. This is the third time the Association has prosecuted Bellaers, and upon each occasion he has had to pay the full penalty of £20 and costs.

THE Manchester and Salford Sanitary Association have under consideration an interesting scheme for providing means for sanitary inspection for the city. Its objects are thus described in a recent circular:—"To provide professional advice, on moderate terms, as to the sanitary condition of dwellings and other premises, and as to the best means of improving the same when necessary." They provide for carrying out their plans by "an inspection and written report, by an engineer of the Association, on the sanitary condition of any dwelling, &c., with specific recommendations, if necessary, as to the improvement of drainage, water-supply, ventilation," &c. "For the report and inspection the fee will be 2½ per cent. on the rent, exclusive of the ground-rent, of the premises inspected, or a minimum fee of one guinea." The plan looks well enough on paper, but it is exceedingly doubtful whether it would work.

WHITBY, we learn from the last report of the medical officer of health, Mr. Taylerson, had a death-rate of 19·5 per 1000 population only during the March quarter; and of the deaths recorded two only were registered of the zymotic class. We are given to understand that much of the excellent state of health exhibited by the returns for the quarter may be properly attributed to the care manifested for the health-welfare of the town by the corporation. If this be the case, we may look forward with certainty to Whitby taking a foremost place in public estimation among our northern health-resorts. To people seeking health, and not mere pleasure-seekers, a statement such as that presented in Mr. Taylerson's last report must prove very seductive.

THE amount of the subscriptions to the Harvey Tercentenary Memorial Fund already announced slightly exceeds £1400. Amongst the recent contributions are two liberal donations of one hundred guineas each from the Royal College of Physicians of London and the Royal College of Surgeons of England. We are requested to state that further funds are greatly needed by the executive committee, who are anxious to close the subscription list as soon as possible, and to select an artist for the execution of the statue.

WITH great regret we have to record the death of Mr. T. Carr Jackson on Tuesday last.

WE have received some details of a sanatorium situated 2300 feet above sea level, at the head of Lake Myösen. The sanatorium of Gansdal has been built about two years, and is capable of accommodating 150 guests. It is reached from Christiania by rail to Eidsvold, and thence by boat up Lake Myösen to Lidehammer, from which point the establishment is reached in two hours by omnibus. The scenery is said to be magnificent, and those who are fond of fishing will find ample opportunity for indulging in their favourite sport. The season is a short one, being limited to July and August, and even at this time of year visitors must be prepared to meet extremes of temperature. Like other mountainous resorts, Gansdal has a reputation for patients suffering from dyspepsia, anæmia, and nervous exhaustion.

ON the 18th inst. there were 132 cases of small-pox in Cork-street Fever Hospital, Dublin, and it was reported by the medical officers that the accommodation available for this class of patients was virtually exhausted. The Kilmainham Auxiliary, however, is ready for small-pox patients, either acute or convalescent. At a recent meeting of the guardians of the South Dublin Union it was resolved to sanction the destruction of and compensation for the clothes of small-pox patients admitted into the hospital at the Kilmainham sheds, or to the hospitals in Dublin, from the suburban electoral divisions, on the recommendation of their medical officers.

THE deaths in London last week numbered 1773, representing an annual mortality-rate of 23·9 per 1000. Of the seven principal zymotic diseases whooping-cough was still the most fatal, 123 deaths being attributed to the disease, 80 to small-pox, 31 to measles, 37 to scarlet fever, 8 to diphtheria, 26 to different forms of fever, and 18 to diarrhœa. There was a considerable decline in the mortality from diseases of the respiratory organs, 398 deaths being registered under this heading, against 497 in the week ending April 13th.

MR. WALTER BARTON STOTT, who died at his residence, near Disley, at the age of seventy-nine, was probably the oldest of Manchester surgeons. To some extent he must be regarded as one of the founders of the Children's Hospital, for, in conjunction with the late Dr. Alexander, and, assisted by Lady Byron, Miss Atherton and others, he took a cottage in Back King-street, about 1831, which, after removal, first to Cross-street, and then to St. Mary's-parade, finally developed into the magnificent institution at Pendlebury.

A BILL to make better provision for idiots, imbeciles, or other afflicted persons in Ireland, has been prepared and introduced to Parliament by Messrs. Moore, Meldon, and O'Shaughnessy. It enacts that boards of guardians may provide for the reception, maintenance, and instruction of helpless paupers, and for the reception and support of insane paupers, and may pay out of the rates the charges incurred in such work. It is intended that the Treasury should contribute towards the establishment of suitable institutions.

AT this week's meeting of the Clinical Society (Friday, 26th) the following papers will be read:—Dr. Tilbury Fox: Cacotrophia Folliculorum. Dr. Barlow and Mr. Marsh: Ovariotomy in a Girl of twelve. Mr. Barker: Wound of an Abnormal Obturator Artery in an Operation for Femoral Hernia. Dr. Barlow (for Dr. Sangster): Urticaria Pigmentosa (living specimen).

THE "Murray medal and scholarship," awarded to the best Aberdeen graduate in medicine of his year, has been conferred on Dr. A. Milne Henderson, who graduated in July, 1877.

WE are glad to see that the Surrey Justices have at last approved the scheme for providing the Lunatic Asylum at Brookwood with a pure water-supply from a deep well. We advocated this improvement some three years ago, and its final adoption is mainly due to the energy of the medical superintendent, Dr. Brushfield.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

Session 1878.

TUESDAY, APRIL 16TH.

THE Council reassembled at 2 o'clock, the President, Dr. Acland, in the chair.

A deputation from the Obstetrical Society of London waited upon the Council. The deputation consisted of Drs. West, Barnes, Aveling, Priestley, Murray, and J. Williams.

Dr. WEST, addressing the Council, said that in the letter which he had the honour to address to the President he had dwelt upon the main points involved in the Obstetrical Society's scheme for the examination and registration of midwives, the object of which was to provide, if possible, for the education, examination, and subsequent registration of women who, having passed the training which would make them competent nurses, superadded to that nursing knowledge the knowledge of how to attend a woman in ordinary labour. It appeared to the Society which he had the honour to represent that, in order that this might be effectually carried out, it was important first of all that no fee should be imposed on such persons greater than their means were likely to enable them to meet. The fees had therefore been fixed at a very low sum. The scheme provided for the registration of those who were at present practising on payment of a very small fee, and superadded a condition which was not in the Lord President's Bill—namely, that a certificate of moral character should be produced, and also a certificate of reasonable competency from some registered medical practitioner. The certificate of moral character was, in the case of women acting as midwives in large cities, a matter of considerable importance, for there were some who exercised that occupation who lent themselves to what must be called a system of infanticide. Pregnant unmarried women went to their houses with the certainty that their children would not survive. Next it was required that the certificate of registration should have a number affixed to it, and that this number should correspond with the number borne on the register, the great object of that being to prevent a traffic in certificates being carried on. The 4th clause provided for the register being kept in the assize town of each county, certain exceptions being made in those cases in which there were two assize towns in one county. The object of that was to save the poor women the expense which would attend their being compelled to come to London or to any other central point for examination and registration. It was also proposed that a return should be made once a year to the Medical Council. The framers of the scheme had been anxious that the Medical Council should have the supervision of the matter. They knew of no other body so fit to undertake that supervision. Further, it was provided that a midwife should be licensed to practise only in the district in which she ordinarily resided, but with a proviso that a woman practising, say in Yorkshire, should not be liable to punishment for occasionally attending a patient in Durham. It was also intended that the register towns should be the examination towns. There were then certain other provisions, the first being that the certificate to practise as a midwife should not trench in any way on the general question of the practice of medicine, but that a woman practising as a registered midwife should practise as that and nothing else. Certain other provisions would, he imagined, be best considered in a sub-committee of the Council, perhaps with the assistance of the Obstetrical Society or

other persons. These related to the limit of age, a certificate of character, as to their being possessed of a minimum general knowledge, and having had certain training as sick nurses. Years ago, when he had to do with midwives, he found that they were often wholly ignorant of the commonest duties of a sick nurse, such as making a poultice, or beef-tea, or preparing arrowroot. It was, therefore, provided that they must bring proof of having acted as a nurse in some infirmary, or having attended on the sick at their own homes under a duly qualified practitioner. With regard to the constitution of the board, the suggestion, which, no doubt, would admit of many improvements, was that it should be of such a character as to impose the smallest possible amount of trouble and expense on those who undertook the duties. It was assumed that in each district connected with the assize town there would be a medical officer of health, and it was proposed that he should be a sort of *ex officio* secretary, four other medical practitioners, whose qualifications were defined, forming the board for the examination of midwives. Certain conditions were laid down as to the number to form a quorum, and the nature of the examination, which would be partly written and partly oral, the actual pass test being the oral examination; these imperfectly educated women would not be expected to express themselves clearly and distinctly in writing. The fee was fixed at £2, 10*s.* being for expenses, 10*s.* as the registration fee, and the remainder to be divided among the examiners present. If there were four persons examined, each examiner would thus receive £1, and he did not think the examination would last more than a quarter of an hour or twenty minutes. The scheme also contained some suggestions as to the duties of midwives, and the limits of their action, all of which points were merely suggestions to the Medical Council, to be adopted or altered as the Council in their wisdom thought fit.

The PRESIDENT asked Dr. West whether, or to what extent, he considered that the portion of the Government Bill relating to midwives tallied with the scheme laid before the Council by the Obstetrical Society.

Dr. WEST said it did not appear to contradict it, but it did not go into details, which, it was supposed, would be drawn up by the Council, with or without communication with the Obstetrical Society. No distinct provision was made as to how the examining board should be constituted. A provision was made that there should be a registration fee not exceeding five guineas, but if any such sum as that were charged the carrying out of the scheme would be rendered impossible. There was no provision for proof of capacity or character on the part of those claiming to be registered. The institution of local examinations and registers was only permissive. If it were not made obligatory, the probability was that nothing would be done.

Mr. SIMON asked Dr. West whether he thought that if, in case of a midwife's removal from one county to another, she should be required to have her certificate endorsed as a proof of good conduct, the expense of a central register would be necessary.

Dr. WEST thought that if a system of local registration were carried out, central registration would not be essential if it involved any heavy expense.

Mr. SIMON inquired whether he understood by malpraxis an important breach of regulations.

Dr. WEST said the cases contemplated were those of gross ignorance and carelessness, such as the taking out of a patient's intestines, or suffering her to flood to death without sending for a medical attendant. With regard to the charge of propagating puerperal fever by slovenliness, which would also come under that head, such a charge would need very careful investigation. A woman might do it innocently or ignorantly. The offence was greater in a doctor, whose knowledge was of course greater.

Dr. QUAIN inquired whether he thought the scheme would involve any serious addition to the duties of the Council.

Dr. WEST thought it would not.

Dr. HUMPHRY asked if it would not be better that the examination should be conducted by special persons appointed to hold them at stated periods in different parts of the country, and whether the Government might not be asked to pay such examiners.

Dr. WEST thought that local examiners would be preferable. It would be almost impossible to get men of position as obstetrical practitioners to undertake the duty of general examiners of midwives—a not very interesting employment.

In answer to Dr. Rolleston,

Dr. WEST said he thought that the interference of the Medical Council in the matter would certainly be beneficial.

Dr. WOOD asked if it was intended to apply the scheme to Scotland and Ireland.

Dr. WEST said that the Obstetrical Society of England had not thought it within their competence to consider the case of the other divisions of the kingdom.

Dr. AVELING stated that the Presidents of the Obstetrical Societies of Edinburgh and Dublin had expressed their desire to co-operate with their English brethren in the matter. He added that he believed the number of midwives in England and Wales to be about 11,500.

Dr. WEST, in reply to Mr. Simon, said it was not intended to impose penalties for the unauthorised practice of midwifery, but only for the unauthorised assumption of the title of registered or legally qualified midwife. It was proposed that none but registered midwives should be competent to hold parochial or other public appointments, and it was hoped that that provision would induce persons to obtain certificates.

The deputation then thanked the Council and withdrew.

Mr. SIMON called attention to the report of the committee of last year on the subject of midwives. The committee, he said, thought that the proposed scheme tended to impose duties upon the Council which it ought not to be called upon to execute. The Council might usefully contribute examination rules, but it ought not to be required to keep a central register, and take upon itself the other duties sought to be imposed upon it. The keeping of the present Register was a very difficult task in consequence of changes of address; and it would be still more difficult to trace midwives from one portion of the kingdom to another. The Council had great difficulty in getting through its present duties during the ten days' sitting, and it could hardly undertake a duty with regard to midwives, which was comparable to the duty of the Local Government Board in respect to officers of health. He proposed—"That the Council adheres to the opinion it expressed last year, in accordance with what it regards as the general intention of the proposals of the Obstetrical Society, that legislation for the following object would be desirable: First, that means, under legal sanction, should be provided for giving credentials of qualification to competent midwives; and, secondly, that the lives of women in labour should, as far as possible, be protected from the incompetent."

After a brief discussion, the motion was passed.

Mr. SIMON then proposed—"That the Council, having regard to its own special purpose and organisation, and to the resources of its office, could not undertake to initiate arrangements which must, for the chief part, be local, for the examination, licensing, and registration of midwives throughout the United Kingdom; nor could it accept such administrative responsibilities as would attach to any central authority which might purport to act in control of the local arrangements; but that the Council would willingly, if so desired, provide examination rules for the assistance of the administrative authorities, local or central, which might be appointed for the purposes of the law."

Sir W. GULL seconded the motion, and said he thought that the examination and registration of midwives would be much better left to local than to central administration. It would be a very serious duty to impose upon the Council, which only ought to have an educational supervision in the matter.

Dr. HUMPHRY proposed as an amendment that the first clause of Section 24 in the Government Bill relating to midwives be adopted.

Mr. TEALE seconded the amendment.

Dr. WOOD, in supporting the amendment, said that the Government had very properly thought that the Medical Council was the best body to supervise the registration of competent midwives; it did not require it to initiate all the details of the scheme. If the Council refused to undertake the duty, it would be showing that it was not the useful body that it ought to be.

After a short discussion Dr. Humphry's amendment was carried.

The Council next proceeded to consider three cases of medical practitioners being committed to prison, and the names of John Baxter Langley, John Campbell White, and Owen Patrick O'Hare, were ordered to be struck off the Register.

The Council then went into committee on the Bill.

Clause 2, Section 24, relating to the examination of midwives, was agreed to.

On Clause 3, which entitles midwives who have obtained their certificates to be "entered in the midwives' register upon payment of such registration fee, not exceeding £5, as may be fixed by the scheme,"

Dr. HUMPHRY said this clause took it for granted that there would be "the midwives' register," and the same expression was repeated in other clauses. The feeling of the Council, he believed, was that it was not necessary or desirable that there should be one central register for midwives. It would involve a great deal of work, and, therefore, he would move, "That in the opinion of the Council it is not necessary that a central register of midwives should be kept, but that there should be local registers, and the duty of keeping them should devolve upon the authorities having power and government in the several places in which the examinations are conducted.

Sir W. GULL said it would be necessary to alter the word "the" to "a" throughout the section.

Sir J. PAGET seconded the motion, which was agreed to.

On the suggestion of Mr. MACNAMARA, it was decided to alter the words "practise midwifery" to "practise as a midwife."

It was then agreed—"That Clauses 3 and 4 be modified in accordance with the foregoing resolution, and that it be provided that a certificate of good character be required in the case of those who present themselves for examination or registration."

Mr. MACNAMARA thought that those who were to be registered without examination should have practised as midwives at least two years before registration.

Dr. WOOD said it was not the custom to make legislation of this kind retrospective. All that could be expected was that the women should bring evidence that they had been engaged in practice as midwives.

Clause 5, Section 24, was then in substance approved of, an addition being made that persons not upon the register should not be eligible for public appointments as midwives.

The second paragraph of Clause 6 was altered to the following: "A register of midwives shall from time to time, and at least once a year, be printed, published, and sold in the several districts of the kingdom, as directed by the scheme, and subject thereto as the General Medical Council shall from time to time direct; also copies of these registers shall be forwarded to the Medical Council on the 1st of January each year."

The paragraph providing that a prosecution for an offence under this section shall not be instituted by a private person except with the consent of the General Medical Council or some branch Council, was altered to "The duty of prosecuting under this clause should devolve upon the local authorities specified under Sub-section 5."

Sections 25 to 34 were approved of.

On Clause 22, which provides a penalty of £20 for unauthorised assumption of titles by unregistered persons practising medicine or surgery for gain,

Sir JAMES PAGET said there were very distinguished members of the profession in London who were Bachelors of Medicine, though they called themselves doctors. Were they to be liable to prosecution?

Mr. SIMON said he hoped the General Medical Council would give notice that after a certain time they would prosecute bachelors of medicine who called themselves doctors.

It was agreed to call the attention of the draughtsman to the third clause of the section, relating to such cases, and also to the first clause, which Dr. A. Smith considered did not reach the case of unqualified assistants who professed to have some title.

The section was then approved of, subject to the re-consideration of the draughtsman, and the Council then resumed and adjourned.

WEDNESDAY, APRIL 17TH.

The following members of the Council assembled at eleven o'clock to meet a deputation from the Medical Reform Committee:—Dr. Acland (President), Sir James Paget, Dr. Rolleston, Dr. Pyle, Dr. Storrar, Dr. Andrew Wood, Mr. Macnamara, Dr. Leet, Dr. Apjohn, Sir Dominic Corrigan, Dr. Quain, Mr. Teale.

The deputation consisted of Dr. Waters, of Chester; Dr. Davey, of Bristol; Dr. Wade, of Birmingham; Dr. Stewart, of London; Dr. Leech, of Manchester; Mr. Wheelhouse, of Leeds; and Mr. Nicholson, of Hull.

The Registrar having read the correspondence which had taken place between the President and Dr. Waters,

The PRESIDENT invited Dr. Waters to make any statement he wished to the Council.

Dr. WATERS said the object with which he and his friends had attended was to draw the attention of the General Medical Council to the question of the direct representation of the profession on the Council.

Dr. QUAIN asked when the Medical Reform Committee was appointed.

Dr. WATERS said the committee was appointed at Newcastle some years ago, after the withdrawal of Lord Ripon's proposed Medical Amendment Bill. Before that time the British Medical Association had simply what was called a Direct Representation Committee.

Dr. QUAIN.—Did that committee resign as the result of a subsequent resolution?

Dr. WATERS.—That committee has never resigned.

Dr. QUAIN.—I read in the journals that several members of that committee resigned, Dr. Waters being one of them; and I have never read of the reappointment of that committee.

Dr. WATERS said that after the meeting at Manchester last year he resigned, but he was requested to attend the next meeting of the committee, when representations were made to him which induced him to resume his seat on the committee, and he had acted as chairman of the Medical Reform Committee ever since. The British Medical Association represented the general body of the profession in the country, and the Medical Reform Committee represented the Association. The objects they had striven for were the direct representation of the profession at the Medical Council, uniformity of qualification and equal rights to practise throughout the United Kingdom. The last object had been attained, but it was the opinion of the Association that reciprocity without the one-portal system might confer an advantage upon bodies of an inferior character, and so enable persons to be registered who were not properly qualified practitioners. The Association declined to accept the Marquis of Ripon's Bill because they thought that if they accepted the conjoint scheme then without the question of direct representation of the profession being settled, the latter question could not have been subsequently brought before the attention of the Legislature. There was no doubt that the "pot of money" formed by the registration fees when the Council was first established, amounting to something like £30,000 or £40,000, constituted the bank upon which the General Medical Council commenced its operations. From that time those who entered the profession paid a fee for registration, and it was felt that if working men were represented in Parliament, and that representation was a valuable addition to the Legislature, surely the educated members of the medical profession might safely be trusted with the election of representatives on the General Medical Council. It was unnecessary for him to recapitulate all the arguments that had been advanced in favour of direct representation. No doubt they were well known to all the members of the Council present. It had been objected that the constituency would be so large that it would be difficult to obtain the votes, but the whole of the constituency in Scotland was not so large as that which elected the Member of Parliament for the University of Cambridge, where all the graduates had a vote. The Medical Reform Committee had received expressions of approval of the direct representation scheme from all parts of the country, and he did not think the General Medical Council could be at issue on this point with the great body of the profession over which it presided.

Sir JAMES PAGET asked whether it was suggested that the vote should be by ballot as well as by proxy papers.

Dr. WATERS said the question of the ballot had not been considered by the Association, but the question which he now wished to submit to the Council was not one of detail, but whether the principle should be acknowledged that the profession as a body should be represented on the General Medical Council.

Dr. WOOD said unless they understood the details by which the principle was to be carried out it would be difficult to pass a resolution on it. He wished to know if it was proposed that the whole of the electors in England should vote for the whole number of representatives, or if England was to be divided into electoral districts.

Dr. WATERS said that was a matter of detail, but as far

as he himself was concerned he never thought of dividing England into electoral districts.

Dr. WOOD asked if a calculation had been made of the expense of such an election. In the Bill brought forward by the Association it was laid down that the expenses of the election should be borne by the Medical Council.

Dr. WATERS said it was proposed that the registrar in each division of the kingdom should issue and receive circulars, and the election would be decided by the votes in those circulars. The expense would be trivial.

Dr. QUAIN asked if it was not a fact that the compulsory clauses for a conjoint examination would have been passed in Lord Ripon's Bill if the party which Dr. Waters represented had not interfered to prevent it, and if an offer was not made at that time to appoint a special committee to go into the question of direct representation.

Dr. WATERS said it was perfectly true that a special committee was offered, but they did not know at the time whether the same Government would be in office in the following session. He could not say whether or not Lord Ripon's Bill would have passed if it had not been for the action of his committee.

The PRESIDENT said since the present meeting of the Council he had received a letter in which two questions were put to him: first, what the Medical Council had ever done for the profession; and, secondly, which member of the Council represented the profession. He had declined to give an answer in private, but he had stated publicly in the Hall of the Apothecaries' Society that the Medical Council, appointed to discharge special duties under an Act of Parliament, had done its best for the profession, and he should like to know what member of the Council would say he did not represent the profession. It must not for one moment be assumed that the motive of those who had seats at that table was simply and solely to represent the interests of particular institutions.

Dr. QUAIN said he wished to fix the blame of not having uniformity of examination on someone, and he did not think Dr. Waters would deny that those whom he represented were the means of throwing out Lord Ripon's Bill. The expression of the meeting at Manchester on this point was so decided that Dr. Waters and other members of the committee resigned; but although they had resumed their seats on the committee, he did not think they could be regarded as expressing the voice of the British Medical Association.

Mr. MACNAMARA said the Council had been called together this session for a special purpose—namely, to consider the Duke of Richmond's Bill, and if Dr. Waters would get the Lord President to call their attention to direct representation, the Council would devote itself to the consideration of that subject.

Dr. ROLLESTON asked if direct representation was claimed as a right, or with the idea that it would improve the Medical Council.

Mr. TEALE asked if the committee desired that the members of the Medical Council should be added to, or should remain as at present. If it was considered necessary to displace some of the present representatives, how was it to be decided which members should retire?

Dr. WATERS said that the College of Surgeons of Dublin, the College of Surgeons of Edinburgh, and the Faculty of Physicians in Glasgow, petitioned against Lord Ripon's Bill, so that he was not alone in his opposition to the Bill. With regard to the resolution that was passed at Manchester, he wished to say that it took the meeting by surprise. There were not at the time thirty-five persons present, and a resolution passed under such circumstances could not be taken as representing the views of the British Medical Association, as it certainly did not represent the views of the Medical Reform Committee. He regarded direct representation on the Council first as a right, and next as being calculated to do good to the Council.

Dr. WOOD asked if the Association had laid its views before the Duke of Richmond.

Dr. WATERS said they had.

Dr. WOOD asked if the Duke of Richmond had given any answer.

Dr. WATERS said he made no promise.

Dr. STORRAR said it appeared to him that there was a link wanting in the unity of the Association in consequence of the resolution passed at Manchester, and he therefore wished to know how far he was accurate in saying that he represented the opinions of the British Medical Association upon this point.

Dr. WATERS said at the meeting at Manchester the report of the Medical Reform Committee was brought forward and carried, but at the fag end of the meeting a resolution was passed instructing the committee, as they could not carry the greater measure, to devote themselves to securing general practitioners against the loss which they sustained through the action of irregular practitioners.

Dr. PYLE asked if the feeling of the profession, as manifested in the Association, was not more in favour of having a Bill that would deal with the penal clauses, and protect the profession, than of the direct representation of the profession in the Council.

Dr. WATERS said he did not think so. At Manchester between 700 and 800 members attended, but the resolution referred to was passed when only thirty or forty were present.

Sir DOMINIC CORRIGAN expressed himself in favour of the direct representation of the profession on the Council. At present the Council merely represented the corporations, the universities, and the Crown.

Dr. STORRAR entirely dissented from Sir Dominic Corrigan's views, and said he regarded himself as representing not only the profession, but the intelligent public at large.

Dr. STEWART said he was one of those who resigned after the meeting at Manchester, but his resignation had never been accepted. The reason that nothing had been done during the last eight years to advance the question was that some of the most influential members of the Medical Reform Committee begged the committee to take no steps in the matter lest they should interfere with the success of the projected conjoint scheme of examination for England, and it was simply and solely in deference to them that the committee had refrained from doing anything since.

The PRESIDENT thanked the deputation for so frankly expressing their views. He gathered from what had been said that the desire of those whom Dr. Waters represented was that the Council should consist of one-fourth of persons elected by the medical profession, one-fourth of Crown nominees, and one-half elected by the universities and corporations. He wished to know if, in the proposed reconstruction of the Council, it was considered necessary that it should still consist of twenty-four members, or whether the numbers should be enlarged or diminished.

Dr. WATERS said that they would be quite satisfied either that the number should continue as at present, or be enlarged or diminished, so long as the proportion was observed.

The PRESIDENT said he wished it to be understood that if the Council did not at the present session discuss this question of direct representation, it would not be from any feeling of disrespect either for the deputation or for the British Medical Association, nor from indifference to the subject. The Council had been called for a special purpose—namely, to consider the Duke of Richmond's Bill, and he did not know whether there would be time for them to take into consideration the subject which Dr. Waters had brought before them.

Dr. WATERS thanked the President and the Council for their kind attention, and the deputation withdrew.

At 2 o'clock the Council reassembled, Dr. Acland in the chair.

The PRESIDENT announced that a deputation, headed by Dr. Waters, had attended in the morning, and submitted their scheme for the direct representation of the profession on the Council.

The Council then went into committee on the Medical Act (1858) Amendment Bill.

The first clause considered was No. 14, which relates to examination rules for securing uniformity of examinations for qualification.

Section 4 enacts that the examination rules shall provide for the admission of women to the examinations.

Dr. ROLLESTON proposed that these words should be approved. He said if the State gave them the boon of a conjoint scheme, it would have a right to some reciprocity, and that would be afforded by provision for the examination of women. Purely permissive legislation on this subject would not suffice, and it was desirable that the question should be settled and got rid of by a statutory enactment. The examination rules should provide for the admission of women to the examinations.

Dr. PYLE seconded the resolution.

Sir JAMES PAGET said at present women could be admitted to the Register by examination by any one of the authorities; but the present Bill required a double qualifica-

tion, so that hereafter women would have to be examined by a surgical as well as by a medical authority. The Duke of Richmond had more than once stated that the examination rules were intended to secure, as far as possible, uniformity of examination, if conjoint boards were not established; and if the clause now under consideration were passed, the Council would not be able to approve the rules of any surgical society which did not provide for the examination of women.

Dr. HUMPHRY said the Bill provided for admission to the Register in two ways, either through examination by a conjoint board, or through examination by two separate authorities—one in medicine and the other in surgery; but there was nothing whatever to compel those bodies to admit women to examinations.

Mr. SIMON said the clause contained many pitfalls, and therefore he suggested that the discussion should be taken, not on details, but on the principle whether women should be admitted to the Register only on the same terms as men, or whether a difference should be made.

Dr. WOOD said he was not prepared to agree to the clause. He had always been opposed to the admission of women, and he was so still; but the Council last year agreed that women might be registered if they could get any of the bodies to pass them, and if the clause became law it would entirely prevent women getting on the Register.

The motion was then carried.

Mr. SIMON proposed to add the words "with such distinctions as may be judged necessary between the cases of men and women."

Sir WM. GULL seconded the motion.

Mr. MACNAMARA thought that any person who wished to be put on the Register should be required to pass the full examination. He quite sympathised with the view that women should not be subjected to the full curriculum where their feelings of modesty would be shocked; but a very important public question was involved. When once a woman got her name on the Register, she was as fully entitled as a man to practise. Women were quite as competent as men to make themselves acquainted with every branch of medicine and surgery. Any female who was strong-minded enough to submit herself for examination should not claim exemption on the score of sex, but should be examined in every department of that profession in which she sought to act.

Dr. HUMPHRY thought the whole matter should be left to the judgment and good taste of those who had to conduct the examinations.

Mr. SIMON said to require women to pass exactly the same examinations as men would virtually be to prohibit them from entering the medical profession.

The resolution was carried.

Mr. ROLLESTON proposed—"That Sub-section (*a*) of Section 4 of Clause 14 run as follows:—'No medical authority who at the passing of this Act has not granted a medical diploma to women shall be compelled to admit a woman to examination for a qualification granted by that authority."

Mr. TURNER seconded the motion, which, after a short discussion, was agreed to.

On the motion of Sir WM. GULL, seconded by Mr. HUDSON, it was agreed—"That the attention of the draughtsman be drawn to the deficiency of power in the Council to carry out the Act in respect of examination rules as regards women, in Section 4 of Clause 14."

Dr. ROLLESTON proposed—"That provided there be no conjoint scheme in operation in any division of the United Kingdom, or there be no admission of women to examination for a double qualification in such division of the kingdom, it shall be in the power of the Council to establish a board for the examination of women in such division of the kingdom."

Sir WM. GULL seconded the motion, which was agreed to.

The omission of Sub-section (*b*) of Section 4 of Clause 14, which runs as follows: "They shall not compel a woman in order to obtain such qualification as will entitle her to be registered in the Medical Register to pass, if she object to do so, the same examination as men, without any distinction on the ground of sex," was moved by Mr. SIMON, seconded by Mr. MACNAMARA, and agreed to.

Dr. ROLLESTON moved: "That in place of Sub-section (*b*) of Section 4, Clause 14, of the Bill, the following paragraph be substituted:—'(*b*) They shall secure that in the cases of women desirous of obtaining a legal qualification as practitioners in this country, the medical education, evidence of which is required by the examining board, shall have been conducted entirely apart from that of males. (*c*) They shall secure that the examination of female candidates, though conducted by the examining board or boards appointed for the examination of male candidates, shall nevertheless be conducted entirely apart from the examination of male candidates.'"

Sir W. GULL seconded the motion.

Dr. HUMPHRY doubted whether this was a proper subject for legislative enactment. The question had far better be left to the discretion, moderation, and good judgment of the examiners. A great deal had been said about liberality, and in his opinion liberality meant trust and confidence in other persons. If confidence were placed in the good feeling of English men and women there would be no serious results.

Dr. A. SMITH thought the resolution was too restrictive. For the last fifty years public lectures in chemistry, botany, and electricity had been delivered in Dublin to ladies as well as gentlemen, and if the resolution were passed ladies would in future be debarred from attending.

Dr. FERGUS.—Were those lectures recognised?

Dr. A. SMITH.—No.

Dr. ROLLESTON said it was a point of considerable consequence, for he had known of great abuses arising from co-education.

The resolution was carried, with the addition of the following paragraph:—"(*d*) That women who pass any examination giving a legal qualification shall have their names entered on a separate register, such separation of the names not to imply any difference of legal rights."

Sections 5, 6, 7, and 8 of Clause 14 were in substance approved.

Mr. MACNAMARA drew attention to Clause 33, where the expression "medical registrar," is defined as meaning "the registrar of the General Medical Council," and pointed out that read with that interpretation Clause 4 would imply that every person who was qualified, whether in England, Ireland, or Scotland, must send his evidence of qualification, along with the fee, to the registrar in London. The same defect ran through the whole Bill. He did not know whether it was the result of accident or design, but he was sure the Council would not approve of it. He therefore moved, "That in the opinion of this Council it is not desirable to transfer to the registrar of the General Medical Council the powers possessed by the registrars of the several Branch Councils, under the Medical Act (1858), to register duly qualified persons, and to receive the fees payable by such persons for such registration, and that a copy of this resolution be transmitted to the draughtsman of his Grace the Lord President's Bill, with a request that he will reconsider, in the spirit of this resolution, the registration clauses of the present proposed Medical Act (1858) Amendment Bill."

Dr. A. SMITH seconded the motion, which was unanimously agreed to.

Referring again to Clause 14,

Sir D. CORRIGAN moved, "That Section 2 of Clause 14 of the Bill run thus—'The examination rules shall not require a candidate to adopt the practice of any particular theory of medicine or surgery,'"—instead of 'The examination rules shall not require a candidate to adopt or refrain from adopting the practice,' &c." He illustrated what he regarded as the necessity for the alteration by some instances connected with homœopathy. On one occasion he was asked to visit a patient who was in epileptic convulsions. On placing his hand on the abdomen he found it was as large as a seventh-month pregnancy. He was then told that the person he was expected to meet was a celebrated homœopathist, and he at once refused to meet him. The young woman had been left seventeen or eighteen days without the bladder having been emptied. He drew off the urine, and found it putrid. She recovered, but to spend the rest of her life in misery, being attacked with chronic cystitis. Archbishop Whately was a noted homœopathist. He had a varicose ulcer on his leg, and insisted on having none but homœopathists to attend him. He was found dead in his bed, floating in his own blood, because homœopathists would not permit the use of an instrument. On more than one occasion homœopathists had said to him, "I have practised homœopathy in this case up to the present, but now I will treat it according to the other principle." Dr. Stokes was so struck with this dishonesty of conduct, that when a celebrated homœopathist presented himself to the University

of Dublin for his degree of M.D., he, as Regius Professor, refused to sign it. He himself would never sign a diploma for a man who would sacrifice a patient's life rather than depart from a theory.

Dr. SMITH seconded the motion.

Sir WM. GULL said he quite agreed with Sir D. Corrigan that nothing could be more ignorant than to found a system of medicine upon an abstract expression, but at the same time he was convinced that no Government would ever consent to omit the words which Sir D. Corrigan objected to.

Sir D. CORRIGAN said he did not care whether the Government would consent or not. What he wanted was that the Council should relieve itself from the imputation of being parties to the disgraceful conduct of homœopathists which led to the sacrifice of human life.

The motion was negatived.

The following addition was made to Clause 15 on the motion of Dr. Humphry:—"That after paragraph 3 of line 15 of Clause 15, the following be added: 'But that power of withdrawal from such scheme on the part of any of the medical authorities be provided in the event of there not being an examining board in each division of the United Kingdom as recommended by the Council in Resolution 3 of the meeting on April 12th.'"

Clauses 16, 17, 18, and 19 were in substance approved.

On Clause 20, one paragraph of which runs, "The power of a medical authority under this Act or otherwise to grant a medical diploma shall extend to the granting of that diploma to persons of both sexes," Mr. SIMON moved the addition of the words, "with distinction, if judged necessary, between the diplomas of men and women."

Sir WM. GULL seconded the motion, but on being put to the vote it was lost.

The clause was then in substance approved, as was also Clause 21.

The Council then resumed.

On the motion of Dr. QUAIN, seconded by Dr. A. SMITH, the Finance Report was adopted.

"The Finance Committee reports that the income of the General and Branch Councils for the year 1877 has been £6035 9*s.* 8*d.*, which is less than the income of the preceding year by £250 17*s.* 1*d.* The expenditure for the year 1877 has been £6684 19*s.* 3*d.*, a sum exceeding the expenditure of the preceding year by £773 0*s.* 1*d.* It will therefore be evident that, while the income has been less, the expenditure has been greater than during the preceding year. Comparing the actual receipts with the actual expenditure, there remains a deficiency on the year of £649 9*s.* 7*d.* The amount of fees paid to the members of Council was greater than that paid in 1876 by the sum of £259 7*s.*, and greater than that of 1875 by £569 2*s.* This result is due to the prolonged sitting of the Council in 1877, which lasted for thirteen days. Another considerable item of expenditure has been that for printing the Pharmacopœia, being £488 14*s.*, which, of course, is in progress of being refunded by the sale of the work, and which will ultimately produce a profit. There is, further, an exceptional expenditure of £250 on preparing a general index to the first ten volumes of the Minutes of the Council. The honorarium paid to the late registrar caused another exceptional increase in the expenditure of £210. On the other hand, in reference to the diminution of expenditure, it is very gratifying to observe that the attention called in the report of the Finance Committee of last year to the very large expenditure on general printing resulted in a considerable decrease, amounting, indeed, to no less a sum than £470 17*s.* 5*d.* During the past seven years the expenditure has on three occasions exceeded the income by a sum averaging £783, whilst on four other occasions the income has exceeded the expenditure by a sum averaging £1006 12*s.* 0½*d.* Whilst the average income for the last seven years has been £5798, the average expenditure for the same time has been £5558. Lastly, the Committee would draw the attention of the Council to the fact that, but for the exceptional outlay of sums amounting in the whole to £948 14*s.*, there would this year have been a balance in favour of the income of £359 4*s.*"

The following motion, proposed by Dr. A. SMITH, and seconded by Sir D. CORRIGAN, was negatived, only two hands being held up in its favour: "That the following amendments be made in Section 13 of the Medical Act (1858): (*a*) That all moneys held in trust by the Branch Councils for England, Scotland, and Ireland, and now invested in Government securities, be transferred to trustees to be appointed by the General Medical Council, and that, at the end of every financial year, the balance to the credit of the respective Branch Councils shall be paid to the trustees aforesaid, save and except that the Branch Council for England may retain, at the end of every year, a sum not exceeding £200, and the Councils for Scotland and Ireland a sum not exceeding £100 respectively, to enable them to pay salaries and other expenses before sufficient registration fees be received. (*b*) That all moneys payable to the respective Councils shall be paid to the treasurers *or registrars* of such Councils respectively, and shall be applied to defray the expenses of carrying *the Medical Acts 1858 to 1878* into execution in manner following—that is to say, separate accounts shall be kept of *the receipts and* the expenses of the General Council, and of those of the Branch Councils. Returns shall be made by the treasurers of the respective Branch Councils, at such times as the General Council shall direct, of all moneys received by them. The expenses of the Branch Councils shall be defrayed, under the direction of those Councils respectively, out of the moneys so received as aforesaid; and the expenses of the General Council, including those of keeping, printing, and publishing the *Registers and the preparing, printing, and publishing the British Pharmacopœia*, shall be defrayed under the direction of the General Council out of the fund held by the trustees.—*Note:* The provision respecting the percentage rate has been omitted; and the words introduced in this amendment are in italics."

Sir D. CORRIGAN moved: "That while the Council cannot undertake the duty of prosecuting unqualified practitioners, they, nevertheless, think it their duty to draw the attention of the Local Government Board of England to a practice, which it would appear exists in England, of practitioners in charge of medical relief districts employing unqualified assistants to act for them in the treatment of medical and midwifery cases, tending to the detriment of the public and other evils; and they would suggest to the Local Government Board of England the consideration of the rule in Ireland, that no medical officer in charge of any dispensary district is permitted to have a substitute to perform his duties unless for a limited time, and unless such substitute is fully qualified to the satisfaction of the Dispensary Board, and with the sanction of the Local Government Board."

Dr. A. SMITH seconded the resolution, which, after a few remarks by Mr. Simon, was agreed to.

After some formal business had been attended to, the session of the Council terminated.

Correspondence.

"Audi alteram partem."

THE COUNCIL ELECTION AT THE COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—M. Jourdain's surprise at learning that he had been talking prose all his life without knowing it affords, perhaps, the nearest parallel to my feeling of astonishment at finding that I have been acting culpably, if not criminally, in writing a letter asking the Fellows of the College to sign a memorial requesting Mr. Lund to offer himself for election to the Council. Thus I suppose it is that "the letter killeth."

Now, Sir, without wishing to extenuate my offence, I would respectfully point out that, in asking for this expression of opinion, without which it seemed difficult to decide whether it would be worth Mr. Lund's while offering himself for election, I have not solicited any pledge that the signer would support Mr. Lund at the poll, though I confess that, owing probably to the original depravity of my mind, there are moments when I doubt whether if I had gone so far as this I should be deserving of Mr. Pollock's strictures, as at such times I cannot help thinking that in this imperfect sphere votes will be canvassed wherever votes decide an election, and that, carrying his principles into practice, it is only in a better and a brighter world that Mr. Pollock can himself hope for election to a seat at the Council, and in that happy land, also, councillors, whether common or collegiate, will probably be unwanted and unknown.

These are, however, unworthy reflections, and I ought to

feel grateful at having escaped that mysterious punishment which Mr. Pollock darkly hints might have befallen me (Shade of Pecksniff, preserve us!) had it been the College of Physicians instead of the College of Surgeons into whose hands I had fallen.

But, Sir, if I am "sore let and hindered" by the language of Mr. Pollock, my feelings in regard to the criticism of THE LANCET are rather those of puzzlement and amaze; for while it speaks of my letter as "ill-judged," and somewhat strongly condemns the whole procedure, I find that it writes in terms of warm approval of an identical requisition forwarded to Mr. Wheelhouse in 1876 by 150 of the Fellows (*vide* LANCET, June 3rd, 1876). What appears as a virtue in 1876 figures as a vice in 1878. What guise will it assume in 1880? "Such thoughts must give us pause."

Under these conflicting doubts, I can only take comfort in the reflection that the 321 Fellows (whose names I forwarded, and who are now increased to 340), in signing the requisition, share my guilt; and, in the hope that our united "excess of zeal" may succeed in securing the election of Mr. Lund,

I am, Sir, your obedient servant,

Manchester, April 23rd, 1878. S. M. BRADLEY.

P.S.—I do not attempt an answer to Mr. Curling's letter, as I do not think such duty devolves upon me.

*** We did not, either in terms or by implication, approve the requisition. Our approval was limited to the facts stated as to the qualifications of Mr. Wheelhouse. We entirely disapprove the procedure by which his candidature was promoted.—ED. L.

To the Editor of THE LANCET.

SIR,—The letters on this subject from Mr. George Pollock and Mr. T. B. Curling, in your last issue, will, I think, receive the warm approval of the majority of the Fellows of the College—at least of those who are outside of the special influences of the Manchester School. Apart from the objection which I, for one, naturally feel to have my vote taken by storm whilst the gentlemen named by Mr. Curling are still without a seat on the Council, the special reason urged for Mr. Lund's election—that he should represent provincial interests—is an improper one. That the gentleman in question fully merits the honour it is the wish of the three hundred Fellows who have signed the memorial to confer on him I thoroughly believe, but the danger of the interests represented becoming very "provincial" I may illustrate by the following occurrence.

A few months ago there was an election in this town for a surgical officer at one of the large hospitals. One of the conditions required of candidates was to the effect that, if not already a Fellow of one of the Royal Colleges of Surgeons of the United Kingdom, he should obtain such Fellowship within twelve months of his appointment, failing which the appointment should be *ipso facto* void.

Now it so happened that the gentleman elected was nearly six months under the age at which, in the ordinary course of circumstances, it would be possible for him to obtain such Fellowship within the stipulated period.

A provincial representative in the Council of the English College, who doubtless had previously underrated the difficulty which would be experienced at the various Royal Colleges of Surgeons in obtaining an infringement of their statutory laws and bye-laws, fathered at the Council of the Royal College of Surgeons of England a scheme by which apparently it was hoped that the natural operation of such laws might be eluded. It was to the effect that the candidate should obtain the fellowship diploma in surgery of the Faculty of Physicians and Surgeons of Glasgow, which apparently makes no restriction in regard to age, and should then claim an *ad eundem* admission to the fellowship of the English College. This was, I think, at the January meeting of the Council. I need scarcely say that the proposition failed to recommend itself to gentlemen too jealous of the value of their diploma to suffer what could only be considered an abasement and depreciation of its currency.

I am, Sir, yours faithfully,

BENNETT MAY, F.R.C.S., B.S. Lond.

Temple-street, Birmingham, April 23rd, 1878.

MEDICAL EDUCATION.

To the Editor of THE LANCET.

SIR,—A crisis having arrived with respect to medical education in the future, I consider the time not inappropriate to offer a few remarks on this *quæstio vexata*.

In your issue for last Saturday (April 13th) you state that there should be an Examining Board to license all future entrants to the profession, and that such examination should be passed prior to taking any diploma.

I quite agree with you in considering it desirable that a State licence should be obtained prior to any medical man's name being put on the Medical Register, but I do not agree with you that this State examination should be passed prior to obtaining a diploma from one of the universities or colleges.

In your own journal you have frequently stated that students will look to the amount of work necessary to enable them to start as qualified medical practitioners—a fact which few people will dispute; and such being the case, it is very improbable that future aspirants for the medical profession will pay large sums of money to the present corporations when they can obtain a Government licence at a small cost.

I consider that it should be made compulsory on all future entrants to take the M.B. and M.Ch. of one of the universities, or to take the diplomas of one of the Colleges of Surgeons and one of the Colleges of Physicians, before being admitted to the Government examination, and that unless the Government examination was passed the candidate would be debarred from practice, and could not have his name placed on the Register.

By following this course, the interests of the present corporations would be less interfered with than would be the case if the Government examination should be passed first, and the then "fully qualified medical practitioners" permitted to "identify themselves with any of the colleges or universities they may desire" afterwards.

I think also that a modified Government examination might be instituted for those members of the profession who are now actually in practice, and whose names are on the Medical Register—such examination not to be compulsory.

For example, if Dr. A., who has been in practice for twenty years, desires to take the Government licence, he should be examined in practical subjects only, such as clinical medicine and surgery, theory and practice of medicine, theory and practice of surgery with operations on the dead body, midwifery and the diseases of women and children. Such subjects as anatomy, zoology, experimental physics, physiology, chemistry, and materia medica ought not to be required from qualified registered medical men seeking the Government licence. Hoping that these remarks may be of some interest to the medical profession,

I remain, Sir, yours truly,

J. A RAYE, L.K.Q.C.P.I.

Hull, Yorkshire, April 16th, 1878.

THE "DIRECT METHOD" OF ARTIFICIAL RESPIRATION AND THE PROPOSED COMMISSION.

To the Editor of THE LANCET.

SIR,—In reply to a letter in THE LANCET of the 13th inst. from Captain Marshall Hall, son of the late distinguished Dr. Marshall Hall, allow me to say I trust he may not be overestimating the importance of the "direct method" of artificial respiration in deeming its recent imperfect presentation by me sufficient occasion for a reinvestigation of the "whole question."

Captain Hall requests the appointment by the profession of a commission to determine the relative merits of the methods of Dr. Marshall Hall and Dr. Silvester, and of the "direct method." While I could not presume to join in this request, I hasten cordially to endorse it, as on no one point is an authoritative expression more important. Should such a commission meet, any service I could render it would be the smallest possible acknowledgment I could make of the unbounded courtesy and kindness, professionally and socially, which I have received from the profession in London.

In answer to the opening sentence of Captain Hall's manly, sound, and courteous letter, I may say that, in so far as the "direct method" may have become a "public" question, it is due entirely to the spontaneous and disinterested action of medical officers of the Royal Humane Society. In answer to various inquiries respecting the "direct method," I may say that, outside of the original prize essay, no illustrations of it have yet appeared in any medical journal. This culpable negligence I am preparing to atone for, and will present them at as early a date as the varied engagements of a visitor will permit.—Faithfully yours,

BENJAMIN HOWARD.

Scientific Club, Savile-row, April 18th, 1878.

"POISON IN THE NURSERY."

To the Editor of THE LANCET.

SIR,—The letter on the above subject in your last week's issue directed my attention to violet powder as the cause of a recent outbreak of erysipelas affecting four infants under my care. Inquiry confirmed my suspicions, as in each case the source of the powder was the same; and of two specimens I procured for analysis, each showed an adulteration with white arsenic of more than 20 per cent. The important nature of these facts leads me to ask your insertion of this letter, in the hope that it may direct attention to a previously unsuspected source of infant danger.

I am, Sir, yours obediently,

FRED. E. COCKELL, Jun., M.R.C.S.

Forest-road, Dalston, April 24th, 1878.

WIMBLEDON SCHOOL.

To the Editor of THE LANCET.

SIR,—A paragraph appeared in your paper of last week, stating that scarlet fever was rife in a large school at Wimbledon. This having been copied into other papers has caused alarm to several of the parents of our pupils, and is calculated to do us injury. Will you kindly afford us an opportunity of stating that the school at Wimbledon is not "Wimbledon School," that we have not had a single case of scarlet fever for more than three years, and that the fever at the school alluded to has entirely passed away.

We remain, Sir, your obedient servants,

JOHN M. BRACKENBURY,
CHARLES J. WYNNE,
Head Masters.

Wimbledon School, Surrey, April 17th, 1878.

THE DUKE OF RICHMOND AND GORDON AND THE SCOTCH CORPORATIONS.

OUR correspondent at Glasgow writes:—The Duke of Richmond has, it is understood, communicated with the Scotch Corporations, and intimated to them that they must amalgamate to form a Conjoint Board somewhat similar to the one proposed for England. He has further stated that unless this is done voluntarily a clause will be inserted in the Bill making the combination compulsory. A meeting of the representatives of the Faculty of Physicians and Surgeons of Glasgow, with those of the Royal Colleges of Physicians and Surgeons of Edinburgh, met in Edinburgh on Wednesday last to discuss the communication. The result, stated generally, was as follows:—The conference declined to entertain the project of amalgamation voluntarily unless the universities were included in the scheme. It thought that the corporations would not exist more than five years if the proposal were adopted as submitted.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.—The annual general meeting of this Association will be held at the Freemasons' Tavern, Queen-street, Lincoln's-inn-fields, on Tuesday, May 7th, at 3 P.M., when several matters of interest to the members of the Poor-law Medical Service will be discussed. After the meeting the members will dine together. Gentlemen who intend to dine are requested to send their names as early as possible to J. Wickham Barnes, Esq., Hon. Sec., 3, Bolt-court, Fleet-street.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At a quarterly meeting of the Council on the 18th inst. the following Members were elected to the Fellowship of the College, under Section 5 of the Charter of the 15th Victoria, relating to Members of twenty years' standing:—

Fayrer, Sir Joseph, K.C.S.I., M.D., F.R.S., Granville-place; diploma of membership dated July, 1847.
Pemberton, Oliver, F.R.C.S. Ed., Temple-row, Birmingham; April, 1847.

The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College on the 16th and 17th inst.:—

Andrew, J. Edward, L.S.A., Victoria, Australia.
Annand, George, M.D. Melbourne, Melbourne, Australia.
Atkinson, John Mitford, L.S.A., Winchester.
Ball, W. Montague, L.S.A., Camden-road.
Bennett, W. C. Storer, L.R.C.P. Lond., George-street, W.
Berry, F. Haycraft, Amwell-street.
Burt, Alfred, L.S.A., Ventnor, Isle of Wight.
Buxton, A. St. Clair, L.R.C.P. Ed., Shepherd's-bush.
Clabburn, Tom George, Norwich.
Clark, C. A. Dagnall, Twickenham.
Clarke, Richard, L.S.A., Henton, Oxon.
Clarke, T. Furze, L.S.A., Richmond, Surrey.
Colenso, R. John, Phillimore-gardens.
Evans, E. Prichard, Llanfabon, South Wales.
Fardon, E. Ashby, Droitwich.
Flood, F. Pultney, Leeds.
Gabb, C. Baker, L.R.C.P. Ed., Hastings.
Gilbert P. Francis, L.R.C.P. Ed., The Vicarage, Cripplegate.
Giles, B. Farady, L.S.A., Canonbury.
Griffith, W. S. Anderson, Sandridge, Herts.
Henderson, Cecil, Clifton, Bristol.
Hetherington, G. Haynes, L.S.A., Uxbridge.
Higgs, Alfred, Leicester.
Lavis, H. J. Johnston, Stalbridge, Dorset.
Lockwood, C. Barrett, L.S.A., Stockton-on-Tees.
Lowson, David, M.D. Aberd., Huddersfield.
Nicholson, J. Edward, Tours.
Pearse, T. Frederick, L.R.C.P. Lond., Finborough-road.
Pinching, W. Wyatt, L.R.C.P. Ed., Gravesend.
Powell, Arthur Ernest, L.R.C.P. Ed., Norwich.
Prichard, J. Edward, Clifton, Bristol.
Rendall, S. Morton, Torquay, Devon.
Sayer, Thomas, Swaffham, Norfolk.
Skelding, H. John, L.S.A., Bayswater.
Sylvester, G. Holden, Tunbridge.
Takaki, Kanehiro, Tokio, Japan.
Wride, F. George, L.K.Q.C.P.I., Oxted, Cheshire.

Of the 47 candidates examined on the above-mentioned days, 27 passed to the satisfaction of the Court of Examiners and obtained their diplomas; 9 passed in Surgery, and when qualified in Medicine will be admitted Members; and the remaining 11 failed to satisfy the Court, and were referred for six months' further professional study. Ten candidates who had passed in Surgery at previous examinations, having subsequently obtained medical qualifications recognised by the College, were also admitted Members.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on April 18th:—

Burnie, William Gilchrist, Bradford, Yorkshire.
Reckitt, John Dennis Thorpe, Wainfleet, Lincolnshire.
Smith, Kenneth Rawlings, Oak Villa, Stamford-hill.
Wells, Charles, Hillside, Stowmarket.

UNIVERSITY OF ST. ANDREWS.—The following gentlemen, having passed the required examination, obtained the degree of Doctor of Medicine on April 18th:—

Codrington, Oliver, M.R.C.S., L.S.A., Fort Pitt, Chatham.
Colby, Wm. Taylor, M.R.C.S.L., L.S.A., Malton, Yorkshire.
Eteson, Alfred, M.R.C.S., Watford, Herts.
Grose, Samuel, F.R.C.S., Staff-Surg. R.N., Melksham, Wilts.
Hall, Frederick, M.R.C.S.E. L.S.A., Leeds, Yorkshire.
Hicks, Henry, M.R.C.S., L.S.A., Hendon, Middlesex.
Macgowan, Alexander Thorburn, M.R.C.S., L.R.C.P., L.S.A., Clifton, Bristol.
Whalley, Wm., M.R.C.S., L.S.A., L.M., Bradford, Yorkshire.
Wotton, Henry, F.R.C.S., L.S.A., Kensington.
Wynter, Hugh Bold, M.R.C.S., L.S.A., Wandsworth-common.

At the same time, the degrees of M.B. and C.M. were obtained by the under-mentioned gentlemen:—

Mackay, John Sutherland, M.A., Edinburgh.
Rea, John Henry, L.R.C.P. & S. Ed., L.M., Belfast.

UNIVERSITY OF LONDON.—The following examiners in the Faculty of Medicine for 1878-1879 were elected at the meeting of the Senate, held on Wednesday last:—Practice of Medicine: W. H. Dickinson, M.D., and Charles Murchison, M.D., LL.D., F.R.S.—Surgery: John Cooper Forster, M.B., and W. S. Savory, M.B., F.R.S.—Anatomy:

Prof. John Curnow, M.D., and Prof. Redfern, M.D.—Physiology: Philip Henry Pye-Smith, M.D., and Prof. J. Burdon-Sanderson, M.D., F.R.S.—Obstetric Medicine: J. Hall Davis, M.D., and Prof. W. S. Playfair, M.D.—Materia Medica and Pharmaceutical Chemistry: Prof. E. B. Baxter, M.D., and Prof. Sydney Ringer, M.D.—Forensic Medicine: Prof. Ferrier, M.D., M.A., F.R.S., and Thomas Stevenson, M.D.—Hygiene, Medicine in relation to the origin and prevention of Disease, and Vital Statistics: William Farr, M.D., D.C.L., F.R.S., and John Simon, C.B., D.C.L., F.R.S.—Sanitary Law and Engineering, Meteorology, and Geology: Prof. T. R. Fraser, M.D., F.R.S., and Capt. Douglas Galton, C.B., F.R.S.

DR. ALFRED HUDSON, Physician in Ordinary to the Queen in Ireland, has been elected a member of the Board of Governors of St. Mark's Ophthalmic Hospital, Dublin, vice Stokes, deceased.

VACCINATION GRANT.—Dr. W. V. Lylé, of Westbourne-square, Paddington, has received £34 Government gratuity for successful vaccination, this being the third time of award.

ST. MARK'S OPHTHALMIC HOSPITAL, DUBLIN.—The bazaar recently held for the benefit of this institution has produced, after the payment of all expenses, the handsome sum of £518 5*s.* 7*d.*

BEQUESTS, &c., to MEDICAL CHARITIES.—Mrs. Foxton, of Pendlebury, bequeathed £1000 (not £100) each to the Manchester Royal Infirmary and the Barnes Convalescent Home at Cheadle. Miss Rachael Goodman, of Hanover-terrace, Regent's-park, bequeathed £1000 each to the London Hospital, the Metropolitan Free Hospital, and the Jews' Hospital at Norwood. Miss Pringle, of Upper Bangor, bequeathed £400 to the Carnarvonshire and Anglesey Infirmary. Sir Arthur E. Guinness, Bart., M.P., has given £897 4*s.* 5*d.* for furnishing, &c., the new Coombe Lying-in Hospital, Dublin. Mr. Pascal Law has given £835 to the Stewart Institution for Imbeciles. The Misses Brooke have given £500, in addition to £200 previously, to the Hospital for Incurables, Dublin; £100 to the building fund of the Jervis-street Hospital; and £100 to St. Mark's Ophthalmic Hospital.

Medical Appointments.

ADAMS, J. F., F.R.C.S.E., has been appointed Surgeon to the Eastern Dispensary, Leman-street, Whitechapel, vice Reynolds, deceased.

BAILEY, R. G., M.R.C.S.E., has been appointed Junior Resident Medical Officer to the Leeds Public Dispensary, at £80 per annum, board and residence, vice Taylor, resigned.

BEST, G. P., M.B., M.R.C.S.E., has been appointed Resident Medical Officer to the Kilburn, Maida-vale, and St. John's-wood General Dispensary, at £120 per annum, furnished apartments, &c., vice Caird, resigned.

BIRD, T., M.R.C.S.E., has been appointed Administrator of Anæsthetics to the Hospital for Women.

BUCHANAN, A., M.B., M.R.C.S.E., has been appointed House-Surgeon and Secretary to the Chelsea, Brompton, and Belgrave Dispensary, Sloane-square, vice Michell, resigned.

COLLIS, R. W., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed House-Surgeon to the Lancaster Infirmary and Dispensary, at £120 per annum, apartments, &c., vice Todd, resigned.

FERGUSON, A. F., M.B., C.M., has been appointed Resident Medical Assistant to the Dundee Royal Infirmary, at £70 per annum, board, lodging, &c., vice Mudie, resigned.

FITZSIMON, C. C., M.D., has been appointed Medical Officer for the Teddington District of the Kingston Union, vice Armstrong, resigned.

FREELAND, R., L.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Parish of Uphall, Linlithgowshire, vice Drysdale, resigned.

GELDARD, R. H., L.D.S. R.C.S.E., has been appointed Dental Surgeon to the Royal Albert Hospital.

GUNN, C., M.D., L.K.Q.C.P.I., has been appointed a Temporary Physician to the Cork-street Fever Hospital, Dublin.

HOLMES, C., M.D., L.R.C.P.L., has been appointed Medical Officer for the No. 2 District of the Chorlton Union, vice Wilson, resigned.

HUNT, B., M.D., M.R.C.P.L., has been appointed a Physician to the Queen's Hospital, Birmingham, vice Mackey, resigned.

HUNT, F. E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the No. 3, or St. Ives, District of the Penzance Union, vice Mockett, resigned.

JAQUET, J. L., M.R.C.S.E., L.S.A.L., has been appointed House-Physician to the Westminster Hospital, vice Hayward, whose appointment has expired.

MASSIAH, B. J., M.B., M.R.C.S.E., has been appointed Resident Medical Officer to the Cheadle Convalescent Hospital, Manchester.

MOORE, J. D., M.D., of Lancaster, has been appointed Visitor of all Houses licensed for the reception of Lunatics within the West Riding of Yorkshire, vice De Vitrè, resigned.

RICHARDSON, W., M.B., C.M., has been appointed Assistant Medical Officer to the Crichton Royal Institution, Dumfries, vice Russell, appointed Resident Medical Superintendent of the Lincoln Lunatic Asylum.

SERGEANT, W. R., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Crowland District of the Peterborough Union, vice Temple, resigned.

SOUTHAM, F. A., M.B., F.R.C.S.E., has been appointed Resident Surgical Officer to the Royal Infirmary, Manchester.

STEAVENSON, W. E., M.R.C.S.E., L.S.A.L., of Downing College, Cambridge, has been appointed a House-Physician to St. Bartholomew's Hospital, vice Abercrombie, whose term of office has expired.

STEELL, G., M.D., has been appointed Resident Medical Officer to the Royal Infirmary, Manchester.

SWETE, E. H. W., M.D., F.C.S., has been appointed Public Analyst for Bewdley, at 21*s.* per analysis, and fees for giving evidence.

TAPLIN, B. D., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer to the Swinhope District of the Caistor Union, vice Fawssett, resigned.

TOMKINS, H., M.D., has been appointed Resident Medical Officer to the Monsall Fever Hospital, Manchester.

WISE, A. T. T., M.D., L.R.C.P.L., M.R.C.S.E., has been appointed an Honorary Medical Officer to the Kilburn, Maida-vale, and St. John's-wood General Dispensary, vice Walker, resigned.

WOODS, C. R., M.B., L.R.C.S.I., & L.M., has been appointed Assistant Resident Medical Officer to the Toxteth-park Workhouse, at £100 per annum, apartments, and first-class rations, vice Macdonnell, resigned.

Births, Marriages, and Deaths.

BIRTHS.

COOMBS.—On the 12th inst., at Moss View, Lower Inco, near Wigan, the wife of Graham Lowe Coombs, M.R.C.S.E., of a daughter.

CORFIELD.—On the 19th inst., at Bolton-row, Mayfair, the wife of William Henry Corfield, M.D., of a son.

DALGLIESH.—On the 16th inst., at West-parade, Newcastle-on-Tyne, the wife of Jonathan Dalgliesh, M.R.C.S.E., of a daughter.

LYONS.—On the 10th inst., at Airdrie House, Cotham-park, Bristol, the wife of Alfred de Courcy Lyons, L.R.C.P.I., of a son.

MARTIN.—On the 12th inst., at Abingdon, the wife of Paulin Martin, M.R.C.S.E., of a son.

SMITH.—On the 8th inst., at Wyndham House, Kingsdown-parade Bristol, the wife of Surgeon-Major Samuel Smith, 1st Administrative Battalion Gloucestershire Engineer Volunteers, of a son.

MARRIAGES.

CORE—PILLANS.—On the 19th inst., at Biggar, William Core, M.D. & C.M., to Bella Johnstone, second daughter of George Pillans, of Biggar.

DRURY-LAVIN—WIGAN.—On the 24th inst., at St. George's, Hanover square, by the Rev. W. Falconer, M.A., Rector of Bushey, Herts assisted by the Rev. Charles Phillips, M.A., Vicar of St. Matthew's, Oakley-square, Dr. Drury-Lavin, late of Park House, Bushey, to Sophia Matilda, widow of Alfred Wigan, Esq., of Heatherden, Iver-heath.

TAYLOR—BALDWIN.—On the 24th inst., at Holy Trinity Church, Bickerstaffe, by the Rev. O. Penrhyn, Vicar of Huyton, assisted by the Rev. G. W. Wall, Vicar, Dr. Geo. G. Stopford Taylor, of Liverpool, to Annie Alice, daughter of the late Richard Baldwin, of Brookfield House, Bickerstaffe.

DEATHS.

ABRAHAM.—On the 3rd inst., at Harrogate, James Abraham, M.R.C.S.E., aged 46.

CONDON.—On the 5th ult., at Fort St. George, Madras, Surgeon-Major Edmund Hunt Condon, M.D., Army Medical Department.

CROUDACE.—On the 10th ult., at Thyetmo, British Burmah, Thomas Croudace, M.R.C.S.E., Surgeon-Major, 6th Madras Native Infantry, aged 51.

EDMONDS.—On the 5th inst., at Ashby-de-la-Zouch, Spencer Edmonds, M.R.C.S.E., aged 45.

FLETCHER.—On the 3rd inst., at Bury New-road, Broughton, Lancashire, Matthew Fletcher, M.R.C.S.E., aged 83.

FLOWER.—On the 18th inst., at Holly Lodge, Denmark-hill, John Swan Flower, M.R.C.S.E.

GIRLING.—On the 4th inst., at Eynsford, Norfolk, Christopher Andrews Girling, M.R.C.S.E., aged 73.

HUDSON.—On the 25th ult., at Herne-hill-road, John Hudson, Surgeon, aged 47.

JACKSON.—On the 23rd inst., at Harley-street, Cavendish-square, Thomas Carr Jackson, F.R.C.S., aged 55.

LEAKE.—On the 14th inst., at Rathkeale House, Giraller's-road, Brook-green, Jonas R. Leake, L.R.C.P.Ed., aged 34.

MACAW.—On the 9th inst., at the Institution for the Insane, Coton-hill, near Stafford, Kennedy Macaw, M.D., aged 39.

MACKENZIE.—On the 13th inst., at Kelso, William Maclean Mackenzie, M.D., aged 59.

MARTIN.—On the 10th inst., at Evesham, Anthony Martin, M.R.C.S.E., aged 64.

MUDGE.—On the 15th inst., at Pencliffe, Hayle, Cornwall, Belling Harvey Mudge, M.R.C.S.E., aged 40.

STOTT.—On the 8th inst., at Disley, Cheshire, Walter Barton Stott, M.R.C.S.E., aged 78.

THOMPSON.—On the 19th inst., at Nottingham, John Northon Thompson, M.R.C.S.E., aged 77.

THOMSON.—On the 18th inst., at Horbury-crescent, Kensington, Dr. Thos. Thomson, aged 60.

WILLIAMS.—On the 11th inst., at Herne-hill-road, Theobald Wolfe Tone Williams, L.R.C.P.Ed., aged 28.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

J. A. MacLauchlan: Testimony taken on the Hearing relative to Charges against Officials of the New Jersey State Prison.
A. Heneman: Anatomical Outlines.
Dr. J. Althaus on Infantile Paralysis.
Vaccination Tracts.
The Whole-meal Bread.
Dr. C. E. Saunders: Report on the Sanitary Condition of Middlesex and Hertfordshire.
J. H. Lockyer: Studies in Spectrum Analysis.
Revue des Sciences Médicales en France et à l'Etranger.
The Dublin Journal of Medical Science. April.
The Australian Practitioner. January.
The Australian Medical Journal.
The Gentleman's Magazine. April.
The Sanitary Journal. March and April.
Dr. Muter: Organic Materia Medica.
Lennox Browne: A Practical Guide to Diseases of the Throat.
Dr. R. E. Dudgeon: Rational Medicine.
Dr. C. Wilson: Report on the Mid-Warwickshire Sanitary District. 1877.
The Ecclesiastical Art Review. April.
Dr. A. Thompson: Annual Report of the Ulverston Urban Sanitary District. 1877.
E. D. Girdlestone: Our Debt and Duty to the Soil.
Dr. Bland: Fifth Annual Report of the Borough of Macclesfield.
The Proceedings of the Medical Society of the County of Kings. 1877.
T. Christy: Hydro-Incubation in Theory and Practice.
H. A. Nicholson: A Manual of Zoology.
R. J. Godlee: An Atlas of Human Anatomy.
Mons. le Dr. Dutrieux: Ophthalmie d'Egypte.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, APRIL 25TH, 1878.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb	Dry Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apr. 19	29·60	S.W.	51	52	..	64	45	0·03	Cloudy
,, 20	29·64	S.	55	55	..	56	49	0·12	Raining
,, 21	29·04	S.W.	49	62	..	59	47	0·47	Fine
,, 22	29·87	E.	50	53	..	62	47	0·06	Overcast
,, 23	29·64	E.	50	53	..	60	46	..	Cloudy
,, 24	29·58	E.	52	53	..	60	50	0·08	Raining
,, 25	29·86	N.E.	47	50	..	65	44	0·02	Cloudy

Notes, Short Comments, and Answers to Correspondents.

"COMMISSIONS" FROM DENTISTS.

WE have received from more than one member of the profession a copy of a printed circular addressed by a dentist to medical men, offering them a "commission" to the extent of twenty-five per cent. on the fees he may obtain from patients who come "recommended" by medical practitioners. Naturally our correspondents resent the insult conveyed in the proposal. It should be understood by adventurers that respectable members of the profession do not enter into "arrangements." We can only express our surprise at the opening sentence of the circular, which it may be worth while to quote: "For a considerable period it has been my practice to remunerate medical men for the honour they do me in recommending me to their patients." Surely there can be no foundation in fact for this assertion. Sir John Lubbock's "Dental Practitioners Bill" will have the effect of legalising the practice of men who thus impose on the public, and it will further advantage their position by giving them a legal right to describe themselves as "surgeon-dentists."

Mr. A. Field.—It is not common; but there would be nothing very unreasonable in the requirement in certain cases.

MEDICAL SERVICE IN THE MILITIA.

To the Editor of THE LANCET.

SIR,—I am a militia surgeon-major on the departmental list, living (a married man) at the seat of the brigade depôt. The annual training of twenty-eight days, just about to begin, comprises my present service and pay. I do not write to complain of grievous loss of emolument, but to ask if, under altered circumstances, I am liable during training to mess and band subscriptions, and whether I am, necessarily, a dining member of the regimental mess?

Yours truly,

April, 1878. T. C.

L.S.A. will do wisely to register the qualification he possesses without delay, although the effect of any change which may be made in the law is not likely to be retrospective.

Mr. J. McDonnell.—Apply to the Agent-General for the Colony (Mr. Fuller), Bloomfield-street, E.C.

Mr. Geo. Jackson.—The notes shall appear shortly.

THE SLOUGH IN ST. JAMES'S-PARK.

WE cannot commend the Ranger of St. James's-park for his sagacity in allowing the lake to be emptied just at this season. During the Easter holidays countless thousands of little children issue from unwholesome courts and alleys to enjoy a long day in the open air. They cannot afford the country, but they are at least free to contemplate the beauties of the park; but on Good Friday, of the ornamental waters there remained only a slough of mud, while the fresh air was rendered impure by the exhalations from this accumulation. We do not doubt that it is highly expedient to clean out the basin of the lake; but why select for this disagreeable operation the week of all others when the park is most crowded, and when its frequenters belong to a class needing more than any other section of the community the vivifying advantages of fresh air and the refining influence of good scenery?

A CASE OF DISTRESS.

SIR JAMES PAGET and DR. HABERSHON will be greatly obliged to the Editor of THE LANCET if he will publish the following list of contributions to the poor surgeon, whose case he was so good as to recommend a month ago:—

	£	s.	d.		£	s.	d.
Dr. Coates, Bath	2	2	0	Geo. May, Esq., Reading .	2	2	0
E. Davis, Esq., Brentford	2	0	0	Sir James Paget	10	0	0
V. E.	1	1	0	Dr. E. Pitcairn, Little-			
Cooper Forster, Esq. ..	5	0	0	borough	1	0	0
Dr. B. Gill	2	2	0	Dr. Frederic Robinson ..	2	2	0
Sir William Gull	10	0	0	G. E. Rundle, Esq., Shar-			
Dr. Habershon	5	0	0	row, near Sheffield ..	5	0	0
Cæsar Hawkins, Esq. ..	2	2	0	Thomas Taylor, Esq. ..	1	0	0
Dr. Holland, Matlock ..	1	1	0	Sir Henry Thompson ..	1	1	0
Sir Wm. Jenner	2	2	0	Edward Trimmer, Esq. ..	1	1	0
F. J.	2	2	0	Dr. Walker, Chesterfield .	0	10	0

A Subscriber.—The sick must not fall between two stools. We think B. would not be acting unprofessionally in seeing them, especially after the refusal of A. to do so. If the power of making and revoking the appointment rests with the Committee, and if B., after hearing A.'s case, perceives nothing in it to dissuade him from accepting it, we think he would be justified in doing so. We write in ignorance of A.'s version of the case. But one thing is clear, that the sick must have a physician.

Mr. Thomas Cooke is thanked for his note. The subject, it will be seen, is not overlooked by us.

AORTIC ANEURISM: CAUSE OF ACCENTUATION OF SECOND SOUND IN AORTIC AREA.

To the Editor of THE LANCET.

SIR,—I have read with some interest Dr. Illingworth's objections to my theory anent the above phenomenon; but it is evident that he has not read my letter with sufficient care, or, I feel convinced, he would not have made me say things which I did not say.

For instance, I never advanced the proposition that the eddies were formed by the "recoil of the aorta" (*vide* ante-penultimate line of his letter), but distinctly stated that I considered them to be due to "reflected portions of the blood column against the aneurismal parietes," and that the resistance thus offered by these to the onward blood-flow caused its recoil upon the semilunar valves.

I studiously avoided any reference to the altered structural conditions of the aneurismal walls and their subsequent functional changes (such as diminished resiliency &c.) as being altogether unnecessary as "essential" factors in the production of accentuation.

The aneurismal walls, whether elastic or non-elastic, will (though not to the same degree) reflect the blood-current impinging against them, at certain angles, with sufficient force to diminish "at the point of interference" the systolic impetus, and the aortic valves are consequently closed with additional force, whilst the pulse at distal side of aneurism is naturally enfeebled thereby, for the force lost in this direction is simply gained in the other.

If, then, this interference be sufficient to manifest itself in the pulse, beyond the aneurism, to our crude tactile sense, how much more energetically will it do so to our infinitely more refined and sensitive auditory apparatus through the medium of the stethoscope in the aortic area!

The amount of resistance necessary to produce accentuation may possibly be small, in illustration of which the following simple experiments may serve as examples:—

If we submerge our head in a vessel containing water, and a single buckshot be dropped into it from the height of a foot or two, the sound will appear to the ear as intense as that of the report of a pistol shot.

Again, if we place our stethoscope outside and in contact with the wall of a small vessel containing water (as in thoracic auscultation), and a single drop of water be made to fall into the vessel, the sound thereby produced will be plainly perceptible.

It may be reasonably objected that in both these experiments the contained liquid is "static," and therefore differs from the "dynamic" condition of the aortic blood-stream; yet, whilst readily recognising the force and value of such objection, I still maintain that the shower of reflected blood particles from the aneurismal wall (independently of its structural and functional changes) is in itself quite sufficient to account for the accentuation, and that my theory remains hitherto perfectly tenable.

I shall have somewhat more leisure soon, when I intend to arrange a set of experiments, by which I hope to be able to practically demonstrate this phenomenon on the principles advanced in support of my theory respecting it.

Yours obediently,

THEODOR LINDE, D.Sc.

Edinburgh University, April 13th, 1878.

IRISH LUNACY COMMISSION.

AN inquiry is being instituted at Dublin upon an important subject—viz., the existing arrangements for pauper lunatics, idiots, and imbeciles in Ireland, and whether it would be advisable to make other provision for their care. It has been suggested that an assistant-physician shall be appointed in each district asylum, so as to relieve the medical superintendent of details and routine duties, and allow him more time and opportunity for investigating the various cases under his care, and for scientific research in mental diseases. At Cork District Asylum this session, Dr. Eames, medical superintendent, gave a course of lectures on Insanity, the first of the kind, if we are not mistaken, ever delivered in Ireland, and which were largely attended by the medical students of the Queen's College in that city.

Dr. Cassells, (Edinburgh.)—Our correspondent will see the notice in our present number.

PARALYSIS OF THE ABDUCTORS OF THE VOCAL CORDS.

To the Editor of THE LANCET.

SIR,—Under the above heading I find a very interesting communication in your last issue, which discussed at some length the question whether the laryngeal disease of a patient, whom I exhibited at the last meeting of the Clinical Society, was due to a central disorder or to a local affection only. The writer of this annotation is, with regard to other nervous symptoms which are present in this case, and which are undoubtedly of central origin, more inclined to attribute the laryngeal symptoms also to a central lesion—an opinion which he shares with Dr. Hughlings Jackson. Now, I do certainly not exclude the possibility of an organic connexion between all the symptoms seen in this case; but there are some points in the history and in the progress of the disease which render this connexion at least somewhat doubtful, and which seem to me to have been a little too much overlooked. As I have not had the opportunity of expressing my own views thereabout during the debate in the Society, perhaps your kindness will grant me a little space in your valuable journal for this purpose.

First I have to refute a few of the assertions made in the annotation. As far as I know there are no cases on record in which bilateral paralysis of the posterior crico-arytenoids has been produced by chlorosis and lead-poisoning; but it will be found in the abstract of my paper, published in your last number, that we have observed one case in which the paralysis was without doubt produced by hysteria (the patient being now quite restored to health), and I may add that about a month before my communication several instances of such hysterical paralysis were reported at a meeting of the Berliner Medicinische Gesellschaft as having occurred in the practices of Drs. Guttmann and Fränkel. So the existence of this kind of paralysis seems to be quite established; but even if it were not, we are not driven at once to look for central lesion as the cause of the laryngeal affection. In fact, this ought to be the last resort, if no other cause could be found, as there is in the thirty-five cases now on record only one in which the post-mortem examination proved that the laryngeal disease was due to central disorder. This is Penzoldt's first case, communicated in Ziemssen's Cyclopædia, vol. iv. Some points in the description of this case make it even doubtful whether there has not been *general* paralysis of the laryngeal muscles, the adductors being less affected than the abductors. In all the other cases of this paralysis in which the post-mortem was made, it was found that it was either due to *local* disorder (perichondritis, compression of the nervous fibres supplying the abductors &c.), or *nothing but isolated atrophy* of the affected muscles was detected. The latter was the result found in three out of the six post-mortem examinations, all made by careful pathologists. This, as well as the clinical observations in 98 per cent. of all cases which I know of, seems to show that central lesion is an extremely rare cause of this laryngeal affection.

If I hesitate to acknowledge this cause for the paralysis in the present case, in which other symptoms prove beyond doubt that the patient suffers from central disease, this hesitation is, I hope, justified by the history and the progress of the different affections. This point seems to me to have been almost completely overlooked. I quite agree with the writer of the annotation that the other nervous symptoms—gait of the character of locomotor ataxy, numbness in the left leg, occasional incontinence of urine, slight left facial paralysis, slight nystagmus, inequality of the pupils, &c.—are most probably due to a disseminated sclerotic affection of the medulla and the spine (syphilis being with nearly complete certainty excluded). But it must not be forgotten that all these symptoms appeared nearly *two* years after the beginning of the laryngeal paralysis, in the meantime no precedent irritative symptoms having been present. Furthermore, these symptoms of disseminated sclerosis, which have appeared only three months ago, make such rapid progress that a deterioration in the patient's gait and sight is to be observed almost from week to week; while the laryngeal paralysis, which I have watched now for six weeks, is not a bit worse than it was when I first saw it. How is that to be explained? I know very well that we often observe in these sclerotic affections an arrest for a considerable time; but I venture to say that there is no case on record in which such an affection had taken *this* course. I will not lay too much stress upon the circumstance mentioned by Mr. Callender and myself, that in a case of central lesion it would be very curious if just those fibres of the vagus alone were affected which supply the laryngeal abductors; for the hypothesis brought forward by the writer of the annotation, that these muscles had perhaps ganglionic centres of their own, is certainly a very ingenious one, and not at all improbable with regard to the strictly opposed functions of the different fibres of the vagus. But even if we grant this possibility, how is the symmetry of the affection to be explained? If it is concluded in the annotation that perhaps one of these centres alone might be materially affected, and the corresponding on the other side might suffer only sympathetically, I must decline to admit the probability of this second hypothesis. The occurrence of sympathetic affections of the larynx is extremely improbable, and altogether opposed to experience (see Ziemssen, l. c.) and to our present knowledge of physiology.

But is it really indispensable that an organic connexion should exist between the two groups of symptoms? Is it not the simplest and most natural explanation that the patient, whose profession has exposed him more than anyone else to influences of temperature (he is inspector of the District Railway), had been attacked two years ago by rheumatic bilateral paralysis of the abductors of the vocal cords (by far the most frequent form of that disease), and that possibly the same or other causes two years later on led to a disseminated sclerotic affection of his medulla oblongata and spinal cord?

I am, Sir, your obedient servant,

FELIX SÉMON, M.D.

Chandos-street, Cavendish-square, April 22nd, 1878.

To the Editor of THE LANCET.

SIR,—An interesting paper was recently read at the Clinical Society of London by Dr. Felix Sémon on Paralysis of the Posterior Crico-arytenoid Muscles. In THE LANCET for September 1st, 1877, particulars of an example of this affection are recorded by me, and in this case, as I stated in the article I refer to, the paralysis originated apparently in a catarrhal attack. The subsequent history of my patient has favoured this view. He has remained perfectly free from any laryngeal trouble. It appears to me that catarrh is the most frequent cause of this affection, and that the neurotic origin is rare.

Dr. Sémon, as I gather from the report of his paper, considers that catarrh was the cause of the disease in two of his cases, disease of the cartilages in two perhaps, and nerve disturbance only in one.

In one only of the cases of paralysis of the crico-arytenoid muscles given by von Ziemssen in his "Cyclopædia of Medicine" is catarrh regarded as a cause; but it is more than likely, I think, that several of the other cases were due to it—those where there was a history of catarrh, cough, erysipelas, &c., as in Cases 5, 6, 7, and 8. In one only of the cases was there positive evidence of central mischief, and in another there was, as in Dr. Sémon's case, compression of both recurrents by firm connective tissue. Your obedient servant,

THOS. R. GLYNN,

April, 1878. Physician to the Royal Infirmary, Liverpool.

Anxious to do Aright.—There are no *special* means which a general practitioner may have recourse to in establishing himself in a new neighbourhood to make himself known to his fellow medicals without derogating from his position as a professional man and a gentleman; indeed, our experience shows that *special* means taken to this end would be injurious to the person adopting them rather than beneficial. They might give rise to a spurious promise of success, but not to the solid success dependent upon the gradual growth in the minds of the people of a just knowledge of the practitioner's worth and competency. A professional man who goes as a stranger into a new locality, and takes a thorough interest in the place and its people in the numerous legitimate ways that exist, will soon find that he will become known in a manner most conducive to his success.

MEDICAL TITLES.

To the Editor of THE LANCET.

SIR,—Permit me to draw your attention to what seems to me to be an omission in the proposed amendments to the Medical Act now before Parliament. It is proposed that there should be penalties for the unauthorised use of medical titles by unregistered persons practising medicine and surgery for gain; but there are no penalties for the unauthorised use of medical titles by registered practitioners practising medicine and surgery for gain. If it is penal for an unregistered person to make use of titles without authority, it cannot be anything less than penal for a registered practitioner to make use of false titles. The mere fact of registering a licence does not permit a practitioner to adopt titles he does not legally hold. I therefore think it should be made penal for any practitioner, whether registered or unregistered, to make use of medical titles to which he has no legal right.

To give you a case in point: A medical gentleman, a licentiate of the College of Physicians of Edinburgh, styles himself on his door-lamp, "Dr. ——"; on his medicine labels, "Dr. ——"; in the subscription-list of the district hospital, "Dr. ——, F.R.C.P."; and in the list of subscribers of the Society for the Prevention of Cruelty to Animals, he stands, and has stood for several years, as "——, M.D." (I can enclose you the evidence), and, this, although his attention has been drawn to the fact by myself and by his College. I think it highly culpable in this man to style himself "Dr.," a "M.D.," and a "Fellow of a Royal College," the highest academical honours that medical men can aspire to, and he only in possession of the single, simple qualification of a licentiate of the College of Physicians. I think it is very unfair to his neighbours, besides being a fraud on the public, that he should make use of titles to which he is not entitled either by law or courtesy. No other profession allows the heterogeneous misuse of titles. Notaries public and S.S.C.s are not allowed to style themselves barristers nor writers to the signet.

Perhaps you could point out whose duty it is to prevent such misuse of titles. Clearly the College of Physicians of Edinburgh are powerless; for some years ago they issued a circular to their licentiates on the subject without effect, and the onus of a prosecution should not be thrown upon private individuals. I trust from your great influence you will be able to get this matter put right before it is too late.

I am, Sir, yours &c.,

April 17th, 1878. M.D.

*** Both the Bills now before Parliament make penal the use of titles not warranted by the qualifications possessed. But the subject requires more attention than it has received.—ED. L.

INSANITY IN PRUSSIA.

IN a Consular Report issued this year will be found some statistics of insanity in the Kingdom of Prussia of sufficient interest to warrant republication. Since the year 1875 the managers of lunatic asylums have been compelled to send separate and full information respecting each lunatic to the Royal Bureau of Statistics in Berlin. In the last year for which returns are available, reports were received from 46 public and 72 private asylums, and it was ascertained that 18,761 persons were under treatment; of this number, 7760 men and 6752 women were kept in public asylums, and 2367 men and 1882 women in private establishments. The percentage of cures was 8·54 on the male side, and 6·25 in the case of women. In the category of "secondary insanity" are placed 42·6 per cent. of the males, and 45·8 per cent. of the females.

Mr. Henry H. Vernon.—The matter was noticed in THE LANCET of April 13th, at page 553.

UNEQUAL LENGTH OF THE LOWER LIMBS.

To the Editor of THE LANCET.

SIR,—The relative length of the lower limbs appears to be a subject of considerable interest to some of our American *confrères*. My attention was called to the subject nearly a year ago by Dr. W. W. Keen, Professor of Anatomy at the Academy of Fine Arts at Philadelphia, who also referred me to a paper by Dr. Cox in the *American Journal of Medical Science* for April, 1875, and I see from your notice in THE LANCET of April 6th that Dr. Dwight and Dr. Hamilton have been investigating the matter, with results which seem to leave little doubt that a difference in the length of the two limbs does exist in a large number of individuals. Since I received Dr. Keen's letter I have examined a few well developed and well constituted persons; but I have failed to find in them any difference in the length of the limbs which could not be accounted for by the difficulty and uncertainty which attend all measurements on the living body. I do not know what mode of measurement has been adopted in America; but the common one in use in this country, of stretching a measuring tape from the anterior superior spine of the ilium to one or other of the malleoli, is not trustworthy, and, indeed, is not a measurement of the length of the limb at all. The measurement should be made from the trochanter to the lower edge of the patella, and from thence to the inner malleolus. These measurements correspond as near as possible with the length of the femur and the tibia; but, unfortunately, the bony prominences are so rounded and ill-defined that two persons making the measurements on the same person at two different times would not obtain similar results within a probable error of a quarter or even half an inch if it were made with the measuring tape. Measuring tapes, moreover, are rarely correctly graduated, and the very marks on the tape bias the observer's mind in favour of the larger divisions with which he is most familiar. For determining delicate points of this kind—for Dr. Dwight states that the average difference in the length of the two limbs is only *one-quarter of an inch*,—and for clinical purposes, callipers should be used (I use a light pair made of box-wood), for they are easy of application, and avoid any error which might arise from a difference in the muscular development of the two limbs; and, I may add, when employed clinically they do not require the removal of bandages and splints. Measurements of the skeleton are made with greater accuracy than on the living body; but it is not sufficient, I think, to measure the femur alone, as its deficiency in length may be compensated by additional length of the tibia. The femur is the bone which grows most, consolidates last, and accommodates itself most readily to external influences, and on it depends in a great measure the difference in the total height of persons of the same age and race.

While anxious to point out the difficulties of ascertaining with certainty slight variations in the length of the lower limbs, I am ready to admit that the deformity may exist in a large number of individuals. The explanation is probably to be found in the greater development and tonicity of the muscles of one side of the body. Right-handed persons are right-legged, and left-handed persons left-legged, if I may use these terms for brevity, and the limb which possesses the least muscular development will be found the longer of the two. Habitually, and without our being conscious of it, the body is supported on one leg (generally the right), while the other serves as a lateral prop—a disposition which might be expected to produce a difference in the actual length of the two limbs; for we know that a man's stature is about half an inch greater in the recumbent than the upright position, and in the morning after a night's rest than in the evening after a day's exercise.

Your correspondent, "Miles" (in your issue of April 13th), seems to have found a difference in the length of the lower limbs to be common among recruits; but he does not state how his measurements were made. If he is quite serious in thinking that tailors can throw any light on the subject, who make their measurement roughly from the hip and from the fork to some part of the shoes, which varies with the fashion of the period, I fear his own observations appertain to sartorial rather than to scientific objects of inquiry, and cannot be accepted as evidence on the present subject. It is by worthless and random suggestions of this kind that an important and interesting field of study is rendered unpopular. In endeavouring to describe with accuracy the proportions of the external form of the body, we meet with difficulties in making measurements with precision which are unknown to the descriptive anatomist. But these errors of observation are subject to a law well known to mathematicians, "the law of frequency of error," which is common to all the natural sciences from astronomy to biology, and they can be estimated by making a sufficiently large number of observations, and striking an average. In this way alone can the relative length of the lower limbs be determined. If there is any constant physiological reason for one limb being longer than the other, a large number of measurements of each limb must be taken, and the averages of the two sets of observations compared together. Unfortunately another very fruitful source of error is the absence of any rules and directions for taking measurements of the body on a uniform plan. I have endeavoured to lessen or remove this difficulty by the construction of an anthropometrical chart, which I hope will meet with the approval of those inquirers who are already versed in the subject, and be of use to others who may wish to enter on such an important and comparatively new and unworked field of study.

I must apologise for the great length of this letter; but I am unwilling that a subject of inquiry in which I am very much interested should lapse into a mere matter of curiosity and idle speculation among the members of a profession who should be its chief and most serious investigators.

I am, Sir, yours &c.,

CHARLES ROBERTS, F.R.C.S.

Bolton-row, Piccadilly, April 15th, 1878.

To the Editor of THE LANCET.

SIR,—It has rather surprised me to see in THE LANCET for a couple of weeks past allusions to the frequent asymmetry of the extremities as a newly established fact in surgery. This point has been well fixed in the minds of Philadelphia surgeons for several years. So far as I know, the first extensive series of measurements was made by Dr. Wm. C. Cox, and published in the *American Journal of the Medical Sciences* for 1874 or 1875. The fact was referred to again by me, and the above article given as authority, in a short paper on "The Treatment of Fractures in the Pennsylvania Hospital," published in the *Archives of Clinical Surgery*, of New York, during 1876. Subsequently the elaborate paper of Dr. Wight (not Dwight), of Brooklyn, appeared in the same journal. In the Pennsylvania Hospital the recognised fact of the inequality of normal limbs has had the effect of causing pretty general disbelief in the utility of measurement, and if there is no overlapping perceptible, and no angularity at the seat of fracture, the cure is considered to be perfect. I regret that, on account of my not having access to the journals mentioned, I am unable to give you more exact dates regarding the articles to which reference has been made.

Respectfully yours,

JOHN B. ROBERTS, M.D.,

Late Resident Surgeon, Pennsylvania Hospital.

Craven-street, Strand, April 16th, 1878.

DISEASES OF CLUB PATIENTS.

A SOCIETY has a right to know the nature of the disease from which one of its members, who claims benefit, suffers. Many Societies, by definite rules, exclude members from benefit who are suffering from drunkenness or disease contracted in immoral ways. From the correspondence sent us we gather that such is the case with the Society in question. If so, we see no breach of confidence in the conduct on which our opinion is requested. The medical officer asked for the information as the representative of the Society, of course for the purpose of conveying it to the officers. It would have been well to have asked the patient's consent, or to have referred the medical officer of the Society to him; but clearly, if he objected, he forfeited his claim to benefit.

THE TREATMENT OF MENINGITIS.

To the Editor of THE LANCET.

SIR,—In reply to some inquiries from a correspondent in your journal of the 13th inst., respecting the treatment of meningitis, in which he states he had tried some prescribed and authorised plan without success, I beg to suggest that there should be some discrimination made between that for tubercular and that for idiopathic meningitis. For the former, iodide of potassium would answer very well as the chief constitutional medicine, especially in the later or more chronic stages, but is probably not nearly so well adapted to cope with the idiopathic kind, or that caused by external agencies, as injuries or excessive heat and light.

Meningitis is common in the interior plains of the Cape and Australia in European children and youths, and is caused by imprudent exposure of the head to the direct rays of the sun, and is fostered by the dryness and clearness of the atmosphere, and should be guarded against by the constant use of the covering found necessary for the head in all hot climates. The treatment I have seen there successful has been the free use of eliminatives to produce an increased flow of the secretions of the skin, kidneys, and bowels by tartarised antimony, nitre, and sulphate of magnesia in moderate doses at frequent intervals. These organs must be kept acting night and day during the gravescent stage, the patient occupying a darkened room, kept cool and well ventilated, and nutriment by fluids freely maintained, to give support under this abnormal drainage. All stimulants should be avoided in the acute stages, but may be resorted to in the chronic stages, and at all times tea and coffee must be shunned, and milk or aerated waters only used for drinks when wanted. The patients will get emaciated under this course of treatment; but the clearness of the brain must be maintained, and the least signs of drowsiness are prognostic of congestion of the brain. Congestion in hot countries rapidly takes its course: the veins of the cerebrum become engorged; effusion of serum pours into the lateral and median ventricles and arachnoid, and coma and stupefaction proclaim the dangerous oppression of the brain. It is this effusion that ought to be tapped and drained off by the free action of the emunctorial organs; and should any relapse of fresh congestion return in a convalescent patient, as is extremely likely from exposure or error in diet, then the saline depurants must be resorted to to vigorously combat it again. It is possible that a milder form of treatment by mercurialisation might be adapted to the more temperate climates of this country; but in hot countries, with a torrid sun blazing all day, there is no time for mild and slow-acting remedies to attain influence on morbid processes. Derivatives and counter-irritants seemed to produce better effects in the early stages when applied to the lower limbs, and to be more applicable to the head itself in the chronic state of meningitis when hyperæmia and irritability of the locality had greatly subsided.

I remain, Sir, yours truly,

W. T. BLACK,

County Club, Bath, April, 1878. Surgeon-Major.

BEST COPY AVAILABLE

MUSCÆ VOLITANTES.

To the Editor of THE LANCET.

SIR,—In the letter of "C. F. N.," concerning muscæ volitantes, he suggests that they are caused by molecules of the conjunctival secretion gliding over the cornea, renewed at each closure of the lids. He says he has read many authorities on the subject, and experimented on himself. I would ask him to read what Mr. Soelberg Wells says upon the subject, if he has not already done so, and then to try the following very simple experiment, which will perhaps induce him to think better of the accepted theory, that muscæ volitantes are subjective and physiological, and "due generally to minute beaded filaments or groups of granules in the vitreous humour." Let him look for the muscæ in the usual way, and then fix on a particular group of granules or "beads," so as to identify at once its particular form (which is easily done). Now let him keep his eyeballs as steady as possible, and wink the lids once rapidly, and he will recognise *the same group* of granules pursuing its course downwards from very much the same position as it was in when he saw it before the eyes were winked. If the granules were external to the cornea, the winking of the lids would, to say the least, probably alter their relative positions in the group, if not entirely remove them from the field of vision. If the eyeballs are moved suddenly during the experiment, it will, of course, interfere with the result.

Yours obediently,

Barrow-in-Furness, April 16th, 1878. E. S., F.R.C.S.E.

ERRATUM.—In the fourth line from the end of Mr. Henry Smith's paper, published in our columns last week, p. 562, for "Mr. Allandale," read "Mr. Annandale."

COMMUNICATIONS, LETTERS, &c., have been received from—Sir J. Paget, London; Dr. Bucknill, London; Mr. Hulke, London; Dr. Sémon, London; Mr. J. Adams, London; Dr. M. Jones, Cork; Mr. Bradley, Manchester; Dr. Vernon, Southport; Mr. Hill, London; Mr. Wynne; Mr. Brackenbury, Wimbledon; Mr. Nicholls, London; Mr. Luscombe, Beverley; Mr. R. Walker, Loughborough; Mr. Parsons, Easingwold; Mr. Redmond, Eckington; Dr. Thomas, Glasgow; Mr. Powell, Leeds; Messrs. Ihlee and Horne, London; Mr. Roberts, Denbigh; Mr. Woods, Liverpool; Mr. Wigmore, London; Mr. Young, Edinburgh; Mr. Brown, London; Dr. Moore, Lancaster; Dr. Taylerson, Whitby; Mr. Treharne, Edinburgh; Mr. Knighton, Kilburn; Messrs. Blackwood, Edinburgh; Dr. Glynn, Liverpool; Mr. R. S. Smith, Bristol; Dr. Lambart, Liverpool; Mr. Weston, Liverpool; Mr. Bradshaw, London; Surgeon-Major Black, Bath; Mr. Wilkinson, Winchester; Mr. G. E. Hermon, London; Mr. King, Hull; Mr. Mayer, Glasgow; Mr. Coates, Salisbury; Dr. Wyld, London; Mr. Wilson, London; Mr. Mitchell, Islington; Dr. Quick, Dublin; Dr. W. V. Lyle, London; Mr. Cockell, Dalston; Mr. Hunter, London; Dr. F. Pollard, Liverpool; Dr. Macfarlane, Kilmarnock; Mr. Moreton, Stafford; Mr. Binny, Manchester; Mr. Raye, Hull; Mr. McRae, Penicuik; Mr. T. S. Townsend, London; Mr. Williamson, Glasgow; Mr. F. Giles, Whitehaven; Mr. Barnard, Munich; Mr. Wall; Dr. Tatham, Salford; Dr. Bird; Dr. Williams, Cheltenham; Dr. Wigglesworth; Mr. Watkins, Worcester; Dr. Wyer; Mr. Steavenson; Mr. Macadam; Dr. Miller, Glasgow; Mr. Harris; Mr. Sutton; Dr. Ponzian; Mr. Carpenter; Dr. Rogers; Dr. Waters, Chester; Dr. Fergusson, Peebles; Dr. Bradley; Mr. May, Birmingham; Mr. Reed; Mr. Bryden; Mr. Whitford; Mr. Martin, Evesham; Dr. J. Williams; Mr. M'Donnell; Dr. Royston; Mr. Willoughby; Mr. Courtenay; Mr. Tremerry, Bristol; Dr. Parker, Wotton-Basset; Dr. Redpath, Driffield; Dr. Barnes, Eye; Mr. Perry; The President of the Pharmaceutical Society; W.; L.R.C.P.; The Society of Public Analysts; N. W. A.; T. C.; Request; University of London; J. N.; R. C. B., London; A Surgeon; F. C.; Nemo; A Subscriber; L.S.A.; A Candidate; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Smith, Bristol; Mr. Coombs, Lower Ince; Mr. Tomlinson, Maldon; Mr. Underhill, Birmingham; Mr. Tamblyn, London; Mr. J. Pothecary, Jersey; Messrs. Milward and Co., London; Mr. Eschwege, London; Mr. Greenwood, Liverpool; Messrs. Bennett, Salisbury; Messrs. Crispen and Co., London; Dr. Habershon, London; Messrs. Tillotson and Son, Bolton; M. Leichterschofen, Homburg; Mr. Dicey, Northampton; Messrs. Carruthers and Co., Inverness; Messrs. Smith and Son, Manchester; Mr. Lutton, Hemel-Hempstead; Mr. Juler, London; Mr. Smith, Bridgend; Messrs. Wothorspoon, Paisley; Dr. King, Ilfracombe; Messrs. Sutton and Sons, Reading; Mr. Merryweather; Guisborough; Dr. S. Warren, Castle Eden; Mr. Singleton; Mr. Brett, Bridlington; Mr. W. R. Smith; Messrs. Argles and Co., Maidstone; Mr. Dowdeswell; Mr. Walker, St. Andrews; Dr. Kelland; Dr. Day, Stafford; Mr. Taylor; Mr. Hill; Mr. E. Smith; Dr. Lister, Ashton; Mr. Marley, Padstow; Mr. Williamson, Middlesborough; Mr. Price; Dr. Eberle; Mr. Garman; Mr. Kelly; W., Sheffield; Surgeon; H. C., Bedale; J. B., Islington; X. Y. Z., London; E., Tring; G., Rugby; Epsilon; A. B.; Medicus; Alpha; Public Vaccinator; B., Preston; B. T.; A. L.; S. W.; H. R. L.; Rector; E. J.; L. F.; Carte; L. S. A.; D.; D. G.; A. B.

Eddowes's Shrewsbury Journal, Exeter and Plymouth Gazette, Shield, City Record, British Architect, Paisley Daily Express, Lancaster Observer, Chard and Ilminster News, Shrewsbury Chronicle, Surrey Express, Cork Constitution, Newcastle Daily Chronicle, &c., have been received.

Medical Diary for the ensuing Week.

Monday, April 29.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8½ P.M. Mr. Mason, "On a Case of Congenital Deformity of Rectum" (living specimen).—Mr. Thomas Bryant, "On the Surgical Treatment of Intestinal Obstruction," with two Cases of Enterotomy.

Tuesday, April 30.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. W. T. Thiselton Dyer, "On some Points in Vegetable Morphology."
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M.

Wednesday, May 1.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Annual Meeting.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. A. D. Michael, "On New British Cheyleti."
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens:—Dr. Cory: Sections of a Uterus on the first day of Menstruation, showing Desquamation of the Decidua; Section of Dysmenorrhœal Membrane. Dr. Poole: Fractured Fœtal Skull. Dr. Bryden: Case of Hand behind Head Presentation.—Papers: Dr. Braxton Hicks, "On a Case of Cæsarean Section"; Dr. Potter, "On a Case of Pregnancy complicated with Malignant Growth in Vagina and Rectum"; Dr. R. Cory, "On Membranous Dysmenorrhœa."
SOCIETY OF PUBLIC ANALYSTS.—8 P.M. Dr. J. Campbell Brown, "On the Composition of Honey."—Mr. G. W. Wigner, "On some recent cases of Diseased Milk."—Mr. C. Heisch, "On some recent Cases of Diseased Milk."—Mr. G. W. Wigner: "Remarks on the work done by Public Analysts during 1877, under the Sale of Food and Drugs Act."

Thursday, May 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Lord Rayleigh, "On Colour."
HARVEIAN SOCIETY.—8½ P.M. Dr. Buzzard, "On a Case of Blepharospasm."—Mr. E. Owen, "On a Case of Epithelioma of Rectum."—Dr. John Williams, "On Cases of Fibroid Tumour treated by Hypodermic Injection of Sclerotic Acid."

Friday, May 3.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—9 P.M. Mr. Wm. Spottiswoode, "On Polarised Light; a Nocturne in Black and Yellow."

Saturday, May 4.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor H. Morley, "On Richard Steele."

TERMS OF SUBSCRIPTION TO THE LANCET.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year.....£1 12 6 | Six Months £0 16 3

TO THE COLONIES AND INDIA.

One Year £1 16 8

Post Office Orders in payment should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable to him at the Post Office, Charing-cross.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under.... £0 4 6 | For half a page £2 12 6
For every additional line.. 0 0 6 | For a page 5 0 0

The average number of words in a line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

N.B.—All letters relating to Subscriptions or Advertisements should be addressed to the Publisher.

Agent for the Advertising Department in France—
Mons. DE LOMINIE, 292, Rue Grenelle St. Germain, Paris.